



PLANNING JUSTIFICATION REPORT

8079 Eighth Line, Halton Hills

Prepared for:
Gilbach (Halton Hills) Inc.

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March 2022

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1.0 INTRODUCTION

Corbett Land Strategies Inc. (CLS) has been retained by Gilbach (Halton Hills) Inc. (Client) to prepare the following Planning Justification Report in support of an Official Plan Amendment (OPA) for the subject lands located at 8079 Eighth Line in Halton Hills. The proposed OPA is intended to re-designate the lands as *Phase 1B Employment Area* and establish land uses which achieve a development concept conceived to include a waterpark and hotel development as well as the development of several other parcels on the subject lands. It is believed that this application can be fully integrated (and approved in advance) into the ongoing work on the Town's Premier Gateway Phase 2B Secondary Plan.

This report provides further details on the proposal, provides relevant areas of context and identifies to and responds to applicable planning policy. The report includes sections on a public consultation strategy and provides summaries of the supporting technical studies. The proposed draft OPA has been appended to this report (see Appendix A).

As is set out in the below sections, this report relies on the completion of several technical assessments including the following:

- Functional Servicing Report;
- Stormwater Management Report;
- Traffic Impact Study;
- Employment Analysis and Scoped Needs Assessment; and,
- Environmental Site-Screening Questionnaire (See Appendix B)
- Scoped Sub-Watershed Study.

To support the proposed development, the Client has enlisted the services of a broad project team consisting of the following:

- Gilbach (Halton Hills) Inc. – Client, Project Managers
- Corbett Land Strategies Inc. – Planning Consultants
- C. F. Crozier & Associates – Transportation and Civil Engineering
- Tate Economic Research Inc. – Employment and Land Economics
- Jennifer Lawrence and Associates Inc. – (Sub-watershed Study) Environmental Planning, Report Coordination and Consolidation
- MGM Consulting – (Sub-watershed Study) Water Resources Engineering
- Savanta, a GEI Company – (Sub-watershed Study) Natural Heritage
- GEO Morphix – (Sub-watershed Study) Fluvial Geomorphology
- DS Consultants – (Sub-watershed Study) Geotechnical and Hydrogeology
- Minnow Environmental - (Sub-watershed Study) Benthics

It is noted that only a Local OPA has been submitted. Further planning applications including Zoning By-law Amendment and Site Plan Approval are anticipated but which will be submitted following the decision with respect to this proposed development.

2.0 THE SUBJECT LANDS

The subject lands are legally described as Part of Lot 1, Concession 9 (ESQ), Town of Halton Hills, Regional Municipality of Halton and municipally located at 8079 Eighth Line in the Town of Halton Hills (See Figure 1). As the lands are located north of Steeles Avenue and Eighth Line, they are located within the Premier Gateway Employment Area and as such are envisioned for long-term employment uses. The area of the subject lands is approximately 19 hectares / 47 acres in area and contains frontage of 235 metres along Steeles Avenue and 321 metres along Eighth Line.

The subject lands are occupied primarily by former agricultural and existing environmental features. The lands formerly contained a farmhouse and associated structures, which were removed prior to the Clients ownership of the lands.

A Scoped Sub-watershed Study (SSWS) was completed for the subject lands due to its presence within the Sixteen Mile Creek Watershed and within the Eastern Branch of the Sixteen Mile Creek (Sub-watershed 5). The East Sixteen Mile Creek flows through the Study Area as well as two small tributaries.

Surrounding Uses

The subject lands are surrounded by the following features and uses (See Figure 2 & 3):

- | | |
|-------|--|
| North | <ul style="list-style-type: none">▪ Agriculture▪ Natural Heritage |
| East | <ul style="list-style-type: none">▪ Agriculture▪ Natural Heritage |
| South | <ul style="list-style-type: none">▪ Steeles Avenue▪ Hornby Presbyterian Cemetery (8021 8th Line) |
| West | <ul style="list-style-type: none">▪ Eighth Line▪ Residential Uses (8137, 8149, 8159, 8169, 8177, 8191 and 8195 8th Line.▪ Hornby Presbyterian Cemetery (8021 8th Line) |

Figure 1: Location and Context Map



Figure 2: Surrounding Existing – View Looking South East (Along Eighth Line)



Figure 3: Surrounding Existing – View Looking North East (Along Steeles Avenue)



3.0 BACKGROUND

3.1 ROPA 47

The Region of Halton adopted Regional Official Plan Amendment No. 47 (ROPA 47) on April 18, 2018 which established certain lands in the Town of Halton Hills as “Urban Area”. Specifically, ROPA 47 was an amendment which addressed the shortfall of employment lands in the Town of Halton Hills Premier Gateway Employment Area. ROPA 47 implemented the directions for the Region’s Growth Strategy determined through Sustainable Halton and would enable the Town to accommodate 75% of new jobs to 2031. However, due to the GTA West and Halton-Peel Boundary Area Transportation Study (HPBATS), the Town’s ability to achieve their employment targets was limited.

Through ROPA 43, some of the Premier Gateway Employment Area was brought into an earlier regional phase, referred to as “Phase 1B”. However, ROPA 43 still resulted in a pre-2021 employment shortfall and therefore required further “replacement” lands be added to maintain the Region’s Growth Strategy. ROPA 47 was utilized to add up to 75 ha of land which ultimately was located on the north side of the “Phase 1B” lands, between Eighth Line and Sixth Line.

Following approval ROPA 47, the amendment was subject to two appeals which identified that the amendment failed to conform to the Growth Plan 2017 as it was done in the absence of completing a municipal comprehensive review and land needs assessment (MMAH) and that it was not consistent with the PPS and resulted in certain lands being left out of the approved phasing strategy (Hodero).

3.2 Minutes of Settlement

Minutes of Settlement were entered into between the previous property owner (Hodero Holdings Ltd.), who appealed Regional Official Plan Amendment 47 (See Appendix C). The appeal involved the Town of Halton Hills and Region of Halton (LPAT File No. PL180499) which ultimately sought to permit the development of the subject lands prior to 2021, provided that a Local Official Plan Amendment was submitted which:

- a) *Demonstrates how the lands can be integrated into an Area-Specific Plan, including by addressing the appropriate requirements of Section 77(5) of this Plan; and*
- b) *Supports the development of a major employment use.*

Furthermore, the Minutes of Settlement required that the amendment be supported by a range of studies and must specifically address F10.4 of OPA 10, including:

- a) *planning justification report that demonstrates, among other things, how section 77(5) of the Regional Official Plan and section D3.5.4.4.3 of the Town Official Plan are met;*
- b) *a land use compatibility evaluation addressing existing residential development in the vicinity of the development;*
- c) *a commercial needs study based on the development proposal being a major employment generating commercial use;*
- d) *scoped sub-watershed study;*
- e) *servicing report; and*
- f) *traffic study.*

The parties acknowledged that the development proposed will be integrated with the Town's adopted Premiere Gateway Phase 1B Secondary Plan and that the various studies could be scoped through the Terms of Reference process.

3.3 Pre-Consultation

On June 10, 2021, the project team attended a pre-consultation meeting with staff from the Town of Halton Hills, Region of Halton and Conservation Halton (amongst other departments and agencies) (See Appendix D). The meeting confirmed that a Local Official Plan Amendment would be required and that certain submission materials would be required to advance the proposed development. The following submission materials were confirmed:

- Draft Official Plan amendment;
- Conceptual Site Plan Drawing;
- Planning Justification Report;
- Functional Servicing Report;
- Transportation Impact Study;
- Sub-watershed study
 - Geodetic Elevations
 - Staking of Top of Bank
 - Functional Servicing Report
 - Stormwater Management Report
 - Geotechnical/Slope Stability Study
 - Hydrogeological Study
 - Floodplain Analysis Study
 - Meander Belt Study/Erosion Assessment
 - Environmental Site Assessment
- Environmental Site-screening Questionnaire

Additionally, specific details were provided on the policy areas which the development needed to address within the future submission. This included:

- That the advancement of the proposed development would effectively replace a municipally initiated Secondary Plan, on the basis that the amendment:
 - is prepared in accordance with the policies of Section G3.1 of the Town's Official Plan;
 - demonstrates how the lands can be integrated into an Area Specific Plan, including by addressing the appropriate requirements of Section 77(5) of the Region of Halton Official Plan; and
 - supports the development of a major employment use.
- That the planning justification report outline how the proposal conforms to the applicable Provincial, Regional and Town policies. A discussion on how the proposal will address/respond to any land use compatibility concerns be provided.
- That a public consultation strategy be developed to be aimed at involving and engaging with surrounding property owners and the public throughout the development review process.
- That Terms of Reference be approved for Transportation and Functional Servicing reports.
- That the Planning Justification report outline how the proposed uses conform with all applicable Regional Official Plan policies and include all requirements from the ROPA 47 appeal settlement, such as demonstrating how the lands can be integrated into an Area-

Specific Plan, addressing the requirements of Section 77(5) of the ROP, addressing Regional land use compatibility policies and guidelines, outlining how the proposed uses support the development of a major employment use and how the supporting studies address comprehensive planning considerations.

4.0 PUBLIC CONSULTATION STRATEGY

As set out in the Halton Hills Official Plan, public participation is an integral component of any land use planning process. Council is to be satisfied that adequate notice has occurred (in accordance with the Planning Act), enough information has been provided, all public and agency comments have been addressed and that the public interest is balanced with the private interest expressed through the application (Sec. G2.4).

As the Town of Halton Hills supports extensive public consultation in development proposals it is recommended that the engagement used for this projects extend beyond the statutory requirements established by the Planning Act. A Public Consultation Strategy has been prepared to ensure that the public is engaged throughout the entirety of the planning process and the development of the subject lands. The strategy includes meetings with elected officials, staff and commenting agencies.

The Client has commenced this consultation well in advance of refining the proposed development. Meetings have been convened over the past years with the express purpose of providing information, receiving feedback and dialoguing with stakeholders. Several meetings with elected officials from the Town of Halton Hills as well as the Province have occurred on the proposed development. It is important to note, that through these meetings project support has been provided. Further, the project team has and is participating in several Regional and Town planning initiatives including the ongoing Regional Official Plan Review, Premier Gateway Phase 2B Employment Secondary Plan and the associated Sub-Watershed Study as well as others.

As further detailed in the sections below, through the sub-watershed study for the subject lands, the project team has engaged numerous meetings with planning staff from the Province, Region, Town and Conservation Authorities. As the natural heritage system on the subject lands is identified with several features, this engagement has been critical in identifying the quality and quantity of these features in order to incorporate their limits and protection areas into a development concept for the subject lands. As the SSWS has been recently resubmitted, the engagement work which has gone into this project has been believed to have been a success.

The project team anticipates working with adjacent neighbours throughout the approval process and is expecting to conduct individual meetings with area residents to receive feedback and mitigate impact. These engagements could involve virtual open houses, public information sessions or one on one meetings between individual residents and the project team.

As will be reflected through the report, the proposed development is only at a conceptual stage. The intention of this is to establish a prospective development scheme in which to establish official plan policies against. In addition to the proposed development being subject to future detailed design exercises, future planning applications are also anticipated. This includes future zoning by-law amendment and site place control applications (to be submitted in the future). It is therefore anticipated that through these processes, further consultation is proposed to occur. However, through the Statutory Public Meeting required for this proposed Official Plan Amendment, it is anticipated that extensive public input will be received and taken into consideration.

5.0 PROPOSAL

In support of the proposed Official Plan Amendment (OPA), a conceptual plan has been prepared which proposes the development of a facility containing a waterpark, hotel and other entertainment uses (See Figure 4). It is anticipated that the proposed development will generate 525 to 895 employees on site and an employment density of 67 to 115 jobs per hectare.

As described in the Draft OPA (See Appendix A) additional uses are proposed to provide further flexibility on the eventual development of the lands. All proposed uses have been established in accordance with current permitted employment uses or have been confirmed through technical assessment to be employment generating (see section below).

The conceptual plan envisions a primary building containing a waterpark, entertainment facility, complimentary services and a 350-room hotel. This building is proposed within Development Block 4 (5.57 ha / 13.76 acres) and is proposed to be supported by surface parking which separate the development from the existing residential uses to the northwest of the subject lands.

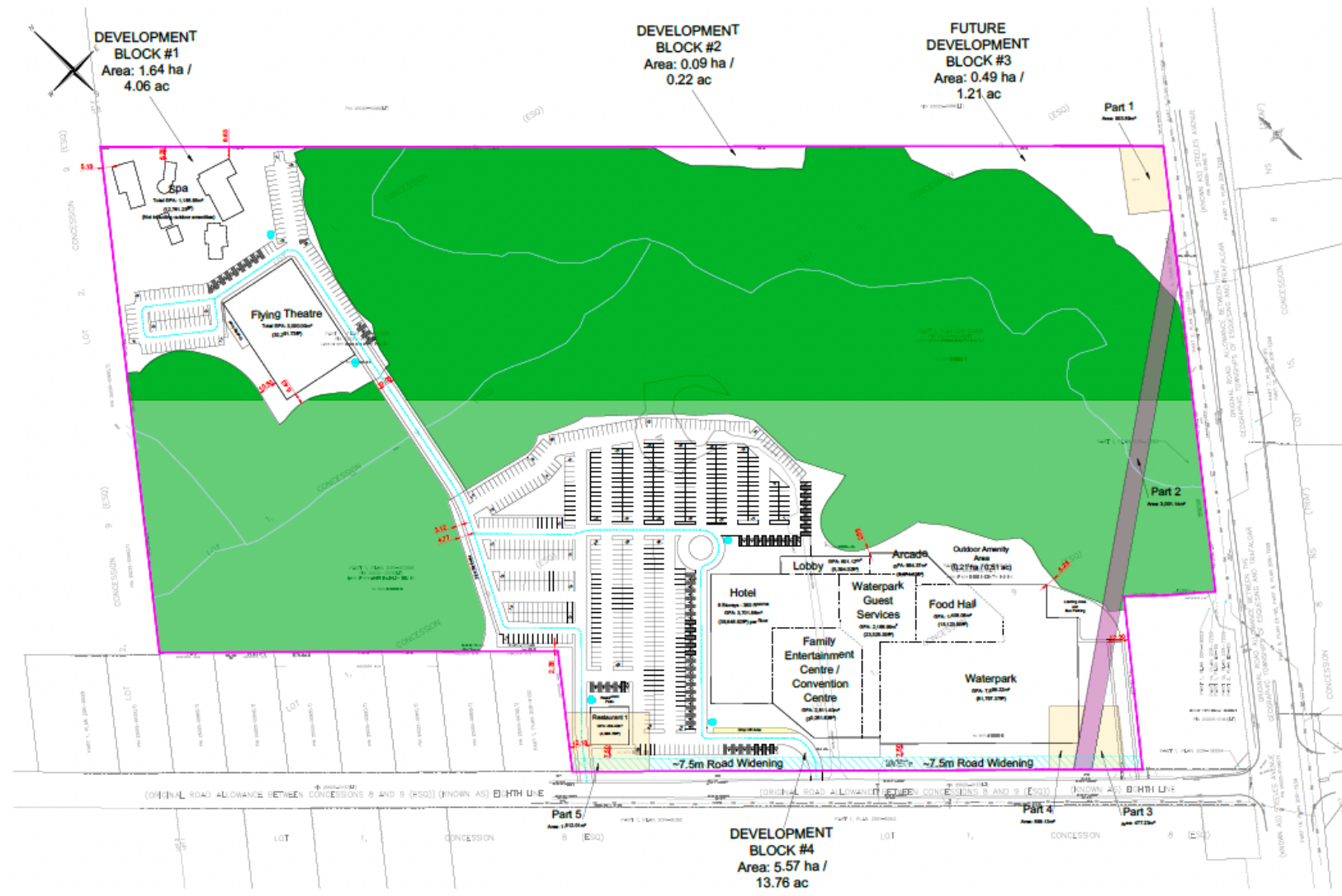
A Flying Theatre and Spa are contemplated within Development Block #1 (1.64 ha / 4.06 ha). Access to this development is proposed through a bridge span which is further described and evaluated in the submitted Functional Servicing and Stormwater Management Report as well as within the recently submitted 2nd Scope Sub-Watershed Study.

Development blocks #2 and 3 (with areas of 0.09 ha and 0.49 ha, respectively) have not been determined at this time. Further analysis is required to confirm stable-top-of-bank and the location of the other features however it is envisioned that this parcels will be used for future employment uses and will be subject to future planning exercises. The proposed uses listed in the Draft OPA are applied to these lands.

Through the submitted conceptual plan, the following is proposed:

Site Statistics	
Site Area	19.06 ha / 47.10 ac
Development Area	7.79 ha / 19.25 ac
Natural Heritage Area	11.27 ha / 27.86 ac
Use	Area
Lobby	501.12 sq. m / 5,394.02 sq. ft.
Hotel (350-room)	8 storeys – 3,701.86 sq. m. / 39,846.52 sq. ft.
Food Hall	1,405.06 sq. m. / 15,123.90 sq. ft.
Waterpark	7,599.22 sq. m. / 81,797.37 sq. ft.
Waterpark Guest Services	2,166.99 sq. m. / 23,325.30 sq. ft.
Arcade	564.37 sq. m. / 6,074.82 sq. ft.
Family Entertainment / Convention Centre	2,811.4 sq. m. / 30,261.63 sq. ft.
Restaurant	464.40 sq. m. / 4,998.79 sq. ft.
Flying Theatre	3,000.00 sq. m. / 32,291.71 sq. ft.
Spa	1,185.55 sq. m. / 12,761.20 sq. ft.
Total	23,399.97 sq. m. / 251,875.18 sq. ft.

Figure 4: Proposed Concept Plan



6.0 PLANNING POLICY AND REGULATORY REGIME

6.1 Provincial Policy Statement (2020)

The Provincially Policy Statement (PPS) came into effect on May 1, 2020 and requires that decisions affecting planning matters “shall be consistent with” the Provincial Policy Statement including comments, submissions, advice that affect a planning matter. It is to be read in its entirety and land use planning must consider all relevant policies.

Building Strong Healthy Communities

Efficient Land Use Patterns

The PPS provides direction on managing and directing land use to achieve efficient and resilient development and land use patterns which accommodate appropriate uses including employment to meet long term needs, avoiding development and land use patterns which may cause environment or safety concerns, avoiding development which prevents unnecessary expansion of settlement area, promotes the integration of land use planning, growth management and transit-supportive development, promotes conservation of biodiversity and prepares for changing climates (Sec. 1.1.1).

The proposed development is located in an area planned for employment to meet the long term needs of the Region and Town. The subject lands are uniquely located in close proximity to major transportation corridors, several population centres and in a planned area which are anticipated to evolve with symbiotic uses. The proposal has been specifically designed to utilize the lands in an efficient manner which avoids developing on adjacent natural heritage features and can be adequately serviced through planned infrastructure improvements.

The PPS requires that settlement areas be the focus of growth and development and be based on densities and a mix of land uses which use lands and infrastructure efficiently minimizes negative impacts to air quality supports active transportation and is freight-supportive (Sec. 1.1.3.2).

As the subject lands are located within the settlement area of the Town of Halton Hills and are planned for employment growth, the proposal utilizes existing and planned infrastructure efficiently.

Coordination

The PPS seeks a coordinated approach when dealing with planning matters. This includes between orders of government or agencies when dealing with infrastructure planning, economic development strategies, managing natural heritage or other resources, natural and human-made hazards, population and employment projects and others (Sec. 1.2.1).

In accordance with the submitted materials, the proposed development has been prepared through the completion of comprehensive assessments on servicing, stormwater, environment, ecology, transportation, economics and land use. This coordinated approach has been coordinated with the various approval agencies and resulted in a development which achieves their various requirements for infrastructure, land use planning, natural heritage and land economics.

To ensure sensitivity between land uses, the PPS sets out that major facilities and sensitive land uses are to be planned to avoid, minimize or mitigate adverse effects including odour, noise and others. When avoidance is not available, demonstration of sensitivity is to include identifying a need for the use, alternative locations have been evaluated, adverse effects have been minimized and potential impacts to industrial or manufacturing or other uses is minimized or mitigated (Sec. 1.2.6.2).

As the subject lands are planned for employment uses, existing surrounding uses are anticipated to be impacted by the development of the broader area and therefore avoidance can only be reduced. Further, through the Employment Analysis the subject lands are an ideal location for the proposed development as they are situated in close proximity to Highways 401 and 407 as well as the Toronto Premium Outlets which is a regional shopping centre which even attracts visitors and customers from beyond the Greater Toronto Area. Through initial conversations with prospective tenants, extensive background evaluation has occurred in the suitability of the site and the preference of the subject lands for the envisioned use over other lands.

To mitigate these impacts in the immediate context, strategies which utilizes natural heritage features and separation distances to buffer the development are proposed to be employed. Please see section below responding to the Regional Land Use Compatibility Guidelines for further information on the proposed mitigation strategies. Additionally, it is noted that further sensitivity exercises will be required through future planning approvals.

Employment

The PPS seeks to promote economic development and competitiveness by the following (Sec. 1.3.1):

- a) Providing for an appropriate mix and range of employment, institutional and broader mixed uses to meet long-term needs;
- b) Providing opportunities for a diversified economic base, including to maintain a range and choice of suitable sites for employment uses which support a wide range of economic activities and ancillary uses, and take into account the needs of existing and future businesses;
- c) Facilitating the conditions for economic investment by identifying strategic sites for investment, monitoring the availability and suitability of employment sites, including market-ready sites, and seeking to address potential barriers to investment;
- e) Ensuring the necessary infrastructure is provided to support current and projected needs.

The proposed development achieves these policies as the Official Plan Amendment seeks to broaden the permitted uses for the subject lands in manner which would encourage a mix of employment uses. Further, the proposed development would ensure that the broader employment area is facilitated in supporting a diverse range of economic activities and ancillary uses. The proposed development would also result in a unique development which would facilitate economic investment in both the local and regional contexts.

Employment Areas are to be implemented to ensure they are protected and preserved, that they support current and projected needs and can occur within existing or planned necessary infrastructure is provided (Sec. 1.3.2.1). Additionally, employment areas planned for industrial

and manufacturing uses shall provide for separation or mitigation from sensitive land uses to maintain long-term operation and the economic viability of the area (Sec. 1.3.2.2).

As set out in the section below, an employment needs analysis was conducted to confirm that the proposed development is a major employment generator. It confirmed that it would result in an employment density which is higher than many uses which could otherwise occur on the lands. The proposal therefore achieves the employment goals and objectives, as set out within local and regional planning policy.

Infrastructure and Public Service Facilities

The PPS requires that infrastructure and public service facilities be provided in a manner which is efficient and prepares for climate change so that they are financially viable over their lifecycle and meet current and projected needs (Sec. 1.6.1). This includes that sewage, water and stormwater facilities can be sustained by the water resources upon which the services rely, prepares for climate change, are financially feasible over the lifecycle, protect human health and safety, promote water conservation and integrates servicing and land use consideration at all stages of the planning process (Sec. 1.6.6.1). Importantly, municipal sewage and municipal water services are the preferred form of servicing for settlement areas to support protection of the environment and minimize potential risks to human health and safety (Sec. 1.6.6.2). Stormwater management is to be planned to ensure that systems are optimized, financially viable, minimizes or prevents increases in containment loads, minimizes erosion and changes in water balance, maximizes vegetative and pervious surfaces, and promotes stormwater management best practices including low impact development (Sec. 1.6.6.7).

As set out in the sections below, and through the accompanying servicing and stormwater strategies, the proposed development can be achieved through the use of planned infrastructure in a financially viable manner. It is important to note that the Scoped Sub-watershed Study has assessed the preliminary servicing strategy, confirmed its impacts on adjacent natural heritage features and determined it to be in compliance with applicable regulatory policies.

Long-Term Economic Prosperity

The PPS provides direction on the long-term economic prosperity by promoting opportunities for economic development and community investment-readiness, encouraging a sense of place through a well-designed built form and cultural planning, and by conserving features that help define character, provide opportunities for sustainable tourism, promote energy conservation and minimize negative impacts from a changing climate (Sec. 1.7.1).

The proposed development will result in substantial economic prosperity for both the Town as well as the Region. Further, it will provide opportunities to enhance the areas tourism sectors by offering uses which will attract new residents and visitors to the area. The proposed development will be subject to future design exercises which will explore opportunities to create a well-designed built form which establishes a sense of place and mitigates impacts from climate change.

Wise Use and Management of Resources

Natural Heritage

The PPS recognizes the importance of protecting natural features and areas for the long-term. Further, in consideration of the diversity and connectivity of natural features in an area, the long-term ecological functions and biodiversity of natural heritage systems should be maintained, restored, or where possible, improved, recognizing linkages between and among natural heritage features and areas (Sec. 2.1.2). The PPS identifies that development and site alteration shall not be permitted on lands adjacent to natural heritage features unless the ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the features or their functions (Sec. 2.1.8).

As set out within the SSWS (further detailed in the sections below), the requirements of the PPS have been assessed and confirmed that the proposal will have no negative impacts on natural heritage features or their ecological functions. Further, the SSWS includes natural hazard and stormwater management features which have been determined to be developed to be consistent with the PPS.

Water

To further ensure the wise management of resources, the PPR directs that the quality and quantity of water is to be protected by using the watershed as the meaningful scale for integrated and long-term planning, minimizing potential impacts including cross-jurisdictional and cross-watershed impacts, identifying water resource systems which are necessary for the ecological and hydrological integrity of the watershed, maintaining linkages and related functions among features, implementing necessary restrictions on development and site alteration and ensuring stormwater management practices minimize stormwater volumes and containment loads (Sec. 2.2.1).

As mentioned, the proposed development is supported by a servicing and stormwater management strategy which can be efficiently implemented by utilizing existing or planned infrastructure and which avoids negative impacts to surrounding systems. The stormwater strategy has been specifically prepared to minimize impact on the local watershed. Further details on the proposed strategies and the assessment of those strategies are included in the sections below.

The proposal is consistent with and achieves the policy requirements of the Provincial Policy Statement.

6.2 A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2020)

A Place to Grow: Growth Plan for the Greater Golden Horseshoe (Growth Plan) came into effect in May 2019. Amendment 1 took effect on August 28, 2020. The Planning Act requires that planning decisions conform to the Growth Plan and builds upon the policy foundation provided through the PPS by providing additional and specific policies for this specific geographic area of Ontario. The Growth Plan is to be read in conjunction with other provincial plans that may apply to the same geography and is also to be read in its entirety with all relevant policies applied to each situation.

Guiding Principles

The Growth Plan is based on several key guiding principles (Sec. 1.2.1) including:

- Support the achievement of complete communities that are designed to support healthy and active living and meet people's need for daily living throughout an entire lifetime.
- Prioritize intensification and higher densities in strategic growth areas to make efficient use of land and infrastructure and support transit viability.
- Provide flexibility to capitalize on new economic and employment opportunities as they emerge, while providing certainty for traditional industries, including resource-based sectors.
- Improve the integration of land use planning with planning and investment in infrastructure and public service facilities, including integrated service delivery through community hubs, by all levels of government.
- Protect and enhance natural heritage, hydrologic and landform systems, features and functions.

The proposed development achieves these principles by establishing a use which not only results in substantial employment opportunities but would result in immediate economic benefits for the community. As the subject lands are located within a planned employment area, it will make efficient use of land and infrastructure. The proposed development will allow the Town to achieve additional economic growth through new and unique employment opportunities which have been planned to enhance the adjacent natural heritage features (as set out in the SSWS).

Where and How to Grow

Managing Growth

The Growth Plan provides population and employment forecasts for upper- and single-tier municipalities to be used for planning and managing growth to the horizon of the plan (2051). The identified population and employment forecasts for Halton Region is as follows:

Distribution of Population and Employment for the Greater Golden Horseshoe to 2051		
	Population	Employment
	2051	2051
Region of Halton	1,100,000	500,000
GTHA Total	11,170,000	5,360,000
Outer Ring Total	3,700,000	1,650,000
Total GGH	14,870,000	7,010,000

In accordance with Sec. 2.2.1, the vast majority of growth is to be directed to settlement areas and focused in the delineated built-up areas, strategic growth areas or locations with existing or planned transit or which have existing or planned public service facilities. To realize this, municipalities are to achieve complete communities which consist of a diverse mix of land uses including residential and employment, allow for improvements to social equity and overall quality of life, mitigate and adapt to the impacts of climate change (Sec. 2.2.1.4).

In accordance with the accompanying Employment Assessment, the proposed development will generate between 525 to 825 employees on site. The proposed density of the development is calculated at 67 to 115 jobs per hectares and confirms that it is a major employment generator. As such, the proposal will assist the Region in achieving its employment targets to 2051.

Employment

The Growth Plan promotes economic development and competitiveness by (Sec 2.2.5):

- a) Making more efficient use of existing employment areas and vacant and underutilized employment lands and increasing employment densities;
- b) By ensuring the availability of sufficient land, in appropriate locations for a variety of employment to accommodate forecasted employment growth to the horizon of this Plan;
- c) Planning to better connect areas with high employment densities to transit; and
- d) Integrating and aligning land use planning and economic development goals and strategies to retain and attract investment and employment.

Through past planning exercises, it was determined that this area would be a future strategic employment area due to myriad of factors including proximity to major transportation corridors and proximity to several major urban centres. By locating the proposed development within this area, it would make efficient use of the planned employment area and offers higher employment densities. In response to the environmental constraints located on the subject lands, the proposed development efficiently uses the unconstrained portions of the lands which could otherwise be considered a hinderance to the development of the lands and potentially remain underutilized.

Municipalities are directed to designate and preserve lands located adjacent to major goods movement facilities and corridors for employment uses such as manufacturing, warehousing and logistics and appropriate associated uses and ancillary facilities (Sec 2.2.5.5). In addition, employment is to be planned which minimizes surface parking and which is adjacent to or near major goods movement facilities and corridors such as highway interchanges as well as areas for manufacturing, warehousing and logistics and appropriate associated uses. Employment uses are also to be planned within settlement areas by prohibiting or limiting residential uses or other sensitive uses that are not ancillary to the primary employment use, prohibiting major retail uses or establishing a size or scale threshold for any major retail uses, and providing an appropriate interface between employment areas and adjacent non-employment areas to maintain land use compatibility (Sec. 2.2.5.7).

The subject lands are located within an area that is designated and preserved for employment uses. Although the development concept is not identified with manufacturing, warehousing or logistics, those uses could be contemplated should the necessary market conditions present themselves. Regardless, the proposed development will result in high levels of employment and has been designed with appropriate buffers from the existing natural heritage features areas.

The Growth Plan also allows the Province to implement *Provincially Significant Employment Zones* which is intended to further protect the primary purpose of the lands for employment uses (Sec. 2.2.5.12).

The subject lands are located within a Provincial Significant Employment Zone which is intended to provide stable, reliable employment across the region. These areas are to be implemented through appropriate Official Plan policies and designations and economic development strategies. It is intended that these areas will contain a significant number of jobs. The proposed development supports the intended function of the Provincial Significant Employment Zone.

Designated Greenfield Area

The subject lands are located within the Designated Greenfield Area (Schedule 2 – A Place to Grow Concept) . As such, the Growth Plan provides direction on the type of development which is to occur within Designated Greenfield Area including those which support the achievement of complete communities, supports active transportation and encourages the integration and sustained viability of transit services (Sec. 2.2.7). The Growth Plan sets out that these lands within the Halton Region are to achieve a minimum of 50 residents and jobs combined per hectare (Sec. 2.2.7.2). This target is to be measured over the entire area but excludes natural heritage features, rights of way for certain infrastructure, employment areas and cemeteries.

As set out in the section above, the proposed development has been calculated to result in an employment density of 67 to 115 jobs per hectare which will assist the Region in achieving the minimum residents and jobs target.

Infrastructure to Support Growth

Transportation

The Growth Plan provides direction on ensuring that the provision of infrastructure accommodates forecasted growth occurs through the coordination of land use planning and infrastructure investment. This includes advancing transportation and the provision of transit to establish connectivity among modes to move people and goods, offer a balance of transportation choices and be multimodal. For the movement of people, transit service is to be planned or expanded to support strategic growth areas and which includes active transportation networks. Goods movement is identified to be a priority with the long-term viability of communities and as such corridors are to be planned to facilitate and emphasize the movement of goods into and out of employment areas (Sec. 3.2).

A Transportation Impact Study has been conducted in support of the proposed development. The assessment determined that the subject lands are appropriately located and can largely operate within the planned road network requiring only minor improvements. The study also recommends that the approval agencies consider additional transit opportunities for the area as a way to encourage alternative transportation choices to and from the proposed development.

Water and Wastewater Systems

Water and wastewater systems are to be planned to optimize and improve the efficiency within existing systems and do not negatively impact the quality and quantity of water, works within the preferred options for servicing growth and development while not exceeding capacities and occurs within the full life cycle cost of the system (Sec. 3.2.6).

Regarding stormwater management, the Growth Plan specifies that large-scale developments proceeding by Secondary Plan or similar process be supported by a stormwater management plan that (Sec 3.2.7):

- a) Is informed by a sub-watershed plan or equivalent;
- b) incorporates an integrated treatment approach to minimize stormwater flows and reliance on stormwater ponds, which includes appropriate low impact development and green infrastructure;
- c) establishes planning, design, and construction practices to minimize vegetation removal, grading and soil compaction, sediment erosion, and impervious surfaces; and
- d) aligns with the stormwater master plan or equivalent for the settlement area, where applicable.

As further detailed within the accompanying servicing and stormwater strategies, the proposed development can be achieved through the use of planned infrastructure in a financially viable manner. Please note, the accompanying Scoped Sub-watershed Study has assessed the preliminary servicing strategy and determined it to be in compliance with applicable regulatory policies.

Protecting What is Valuable

Water Resource Systems

The Growth Plan looks for ways in which natural heritage features and areas are wisely protected and managed. This includes the identification and protection of water resource systems which requires the completion of watershed planning as well as the identification of a Natural Heritage System. The water resource system require the completion of watershed planning to support a comprehensive, integrated and long-term approach to the protection, enhancement or restoration of the quality and quantity of water within a watershed (Sec. 4.2.1.1). For large-scale developments in designated greenfield areas, planning is to be informed by a sub-watershed plan or equivalent (Sec. 4.2.1.5).

Through the SSWS, the Natural Heritage System has been identified and assessed. The proposed development has incorporated that work to support a comprehensive, integrated and long-term approach to planning for the protection of the region's natural heritage and biodiversity.

Natural Heritage System

For lands within the natural heritage system, new development is to demonstrate the following (Sec. 4.2.5.3):

- i. there are no *negative impacts* on *key natural heritage features* or *key hydrologic features* or their functions;

- ii. connectivity along the system and between *key natural heritage features* and *key hydrologic features* located within 240 metres of each other will be maintained or, where possible, enhanced for the movement of native plants and animals across the landscape;
- iii. the removal of other natural features not identified as *key natural heritage features* and *key hydrologic features* is avoided, where possible. Such features should be incorporated into the planning and design of the proposed use wherever possible;
- iv. except for uses described in and governed by the policies in subsection 4.2.8, the disturbed area, including any buildings and structures, will not exceed 25 per cent of the *total developable area*, and the impervious surface will not exceed 10 per cent of the *total developable area*;
- v. with respect to golf courses, the disturbed area will not exceed 40 per cent of the *total developable area*; and
- vi. at least 30 per cent of the *total developable area* will remain or be returned to *natural self-sustaining vegetation*, except where specified in accordance with the policies in subsection 4.2.8;

Specifically, development within settlement area is prohibited in areas that are part of the natural heritage system or in key hydrologic features except for (Sec. 4.2.3.1):

- a) forest, fish, and wildlife management;
- b) conservation and flood or erosion control projects, but only if they have been demonstrated to be necessary in the public interest and after all alternatives have been considered;
- c) activities that create or maintain infrastructure authorized under an environmental assessment process;
- d) mineral aggregate operations and wayside pits and quarries;
- e) expansions to existing buildings and structures, accessory structures and uses, and conversions of legally existing uses which bring the use more into conformity with this Plan, subject to demonstration that the use does not expand into the key hydrologic feature or key natural heritage feature or vegetative protection zone unless there is no other alternative, in which case any expansion will be limited in scope and kept within close geographical proximity to the existing structure;
- f) expansions or alterations to existing buildings and structures for agricultural uses, agriculture-related uses, or on-farm diversified uses and expansions to existing residential dwellings if it is demonstrated that:
 - i. there is no alternative, and the expansion or alteration in the feature is minimized and, in the vegetation protection zone, is directed away from the feature to the maximum extent possible; and
 - ii. the impact of the expansion or alteration on the feature and its functions is minimized and mitigated to the maximum extent possible; and
- g) small-scale structures for recreational uses, including boardwalks, footbridges, fences, docks, and picnic facilities, if measures are taken to minimize the number of such structures and their negative impacts.

Development outside of settlement areas may be permitted within a key hydrologic area where it is demonstrated that the hydrologic functions, including the quality and quantity of water, of these areas will be protected and, where possible, enhance or restored through (Sec. 4.2.3.2):

- a) the identification of planning, design, and construction practices and techniques;

- b) meeting other criteria and direction set out in the applicable watershed planning or sub-watershed plans; and
- c) meeting any applicable provincial standards, guidelines, and procedures.

For lands adjacent to key hydrologic features and key natural heritage features, the Growth Plan requires an evaluation which establishes a vegetation protection zone, which is sufficient width to protect the feature and functions from the impacts of the proposed change, is to be maintained as natural self-sustaining vegetation and for select features is no less than 30 metres measured from the outside boundary of the feature. Further, additional restrictions to be applied if identified and that development cannot occur within the vegetative protection zone unless in accordance with Sec. 4.2.3.1 (Sec. 4.2.4).

Finally, the Growth plan provides direction on how to reduce greenhouse gas emissions and address climate change (Sec. 4.2.10):

- a) supporting the achievement of complete communities as well as the minimum intensification and density targets in this Plan;
- b) reducing dependence on the automobile and supporting existing and planned transit and active transportation;
- c) assessing infrastructure risks and vulnerabilities and identifying actions and investments to address these challenges;
- d) undertaking stormwater management planning in a manner that assesses the impacts of extreme weather events and incorporates appropriate green infrastructure and low impact development;
- e) recognizing the importance of watershed planning for the protection of the quality and quantity of water and the identification and protection of hydrologic features and areas;
- f) protecting the Natural Heritage System for the Growth Plan and water resource systems;
- g) promoting local food, food security, and soil health, and protecting the agricultural land base;
- h) providing direction that supports a culture of conservation in accordance with the policies in subsection 4.2.9; and
- i) any additional policies to reduce greenhouse gas emissions and build resilience, as appropriate, provided they do not conflict with this Plan.

As set out in the SSWS, Section 4.2.1.4 of the Growth Plan, which requires planning for large scale development to be informed by a Sub-watershed Study or equivalent, is achieved. Specifically, it notes that while no portion of the Study Area is within the Growth Plan NHS, a small portion of the Extended Study Area (northeastern portion) is outside of the Settlement Area. As a result, policies related to the identification of key hydrologic features would apply on those lands. As noted in the SSWS report, the portions of the East Sixteen Mile Creek within the lands outside of the Settlement Area boundary would be considered a key hydrologic feature. However, no development is proposed within this key hydrologic feature as part of the current application and further, the watercourse is protected within the existing RNHS. For further information on compliance with the natural heritage policies of the Growth Plan, please refer to the SSWS study.

In accordance with above, the proposed development conforms to the A Place to Grow: Growth Plan for the Greater Golden Horseshoe (2020).

6.3 Region of Halton Official Plan

The Regional Official Plan (ROP) was approved by Regional Council on December 16, 2009 and resolved through OMB decisions between 2012 to 2017. The ROP provides direction on how physical development should take place as well provides the long-term vision for the physical form of the community.

Halton's Regional Structure

The ROP provides a regional structure which consists of urban area, agricultural area, hamlets, the regional natural heritage system, regional waterfront parks and the North Aldershot Policy Area. To achieve the regional structure, the ROP provides a distribution of population and employment target for the planning horizon of 2031. These targets are also implemented through the regional phasing.

Table 1: Population and Employment Distribution				
	Population		Employment	
Municipalities	2006	2031	2006	2031
Burlington	171,000	193,000	88,000	106,000
Oakville	172,000	255,000	82,000	127,000
Milton	56,000	238,000	28,000	114,000
Halton Hills	58,000	94,000	20,000	43,000
Halton Region	456,000	780,000	218,000	390,000

The Regional Structure also sets out targets for intensifying development within the Built-Up Area and development density in the Designated Greenfield Areas, as described in Table 2 (Sec. 55.1).

Table 2: Intensification and Density Targets		
Municipalities	Minimum Number of New Housing Units to be added to the Built-Up Area between 2015 and 2031	Minimum overall Development Density in Designated Greenfield Area (Residents and Jobs Combined Per Gross Hectare)
Burlington	8,300	45
Oakville	13,500	46
Milton	5,300	58
Halton Hills	5,100	39
Halton Region	32,200	50

The Regional Structure also sets out phasing to be achieved every five years from 2012 to 2031 between the Built-Up Areas and the Designated Greenfield Areas in Table 2A (Sec. 55.2).

Table 2A: Regional Phasing				
Municipality	2012-2016	2017-2021	2022-2026	2027-2031
Halton Region				
• Units in Designated Greenfield Area	17,899	16,606	16,530	14,371

• Units inside the Built boundary	9,187	12,245	11,606	11,699
• Employment	37,460	39,191	28,026	34,290
Halton Hills				
• Units in Designated Greenfield Area	672	847	3,936	3,773
• Units inside the Built boundary	517	917	2,056	2,087
• Employment	787	2,192	9,420	9,606

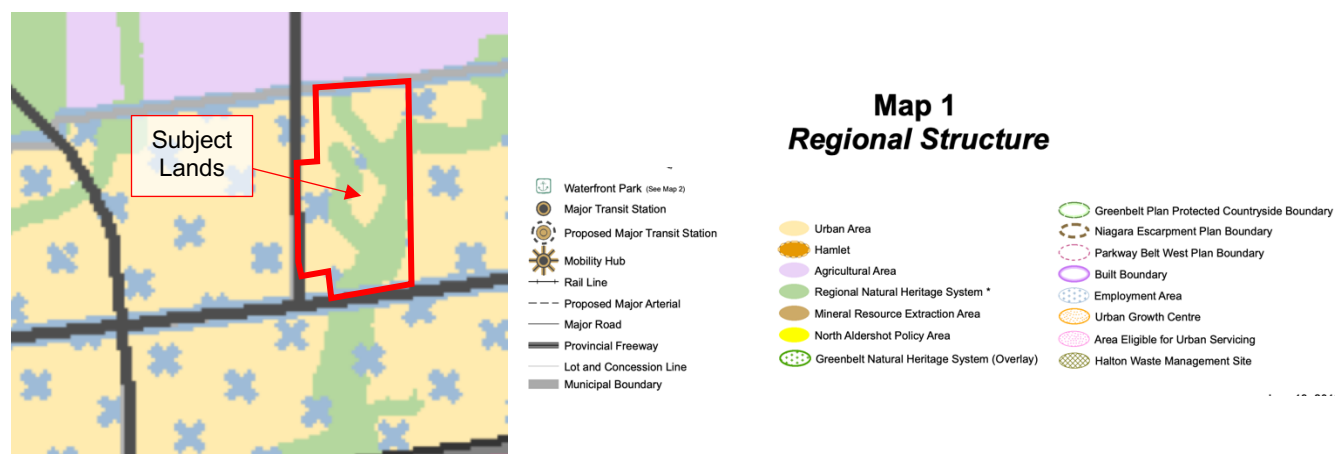
In accordance with Tables 1, 2 and 2A, specific targets are established which municipalities are to plan to achieve. In accordance with Table 1, Halton Hills is planned to achieve 43,000 jobs by 2031. In accordance with Table 2, Halton Hills is planned to achieve a development density of 39 residents and jobs per gross hectare. In accordance with Table 2A, Halton Hills is planned to achieve approximately 9,430 new jobs between 2022-2026. The proposed development will specifically assist in achieving these targets as it will result in approximately 525 to 895 employees and an employment density of approximately 67 to 115 jobs per hectare.

Land Use Designations

As illustrated on Figure 5, the lands are designated *Urban Area* and *Regional Natural Heritage System* with an *Employment Area* overlay. Additionally, the ROP directs that lands located within the Urban Area but outside of the *Built-Up Area*, are within the *Designated Greenfield Area*.

Urban Area

Figure 5: Halton Region Official Plan - Map 1 – Region Structure



The *Urban Area* designation seeks to accommodate growth in accordance with the Region's desire to improve and maintain regional unity, promote economic prosperity and maintain a high quality, sustainable natural environment. This designation also supports growth which is compact and transit-supportive and makes efficient use of space. The *Urban Area* is relied upon to support a rate and phasing of growth which is local and orderly and plans for a balance of jobs and housing across the Region. Importantly, the Urban Area is to provide for an appropriate range and balance of employment uses including industrial, office and retail and

institutional uses to meet long-term needs in appropriate locations which are protected (Sec. 72).

Within the *Urban Area*, portions are designated to accommodate existing and future development such as Employment Areas. As the subject lands are located in such an area, further direction is provided. Please note, the ROP sets out that the range of permitted uses is to be established within the Local Official Plan and Zoning By-law.

As set out above, the proposed development achieves the goals and objectives of the Urban Area designation as it constitutes a major employment generator which has been planned to be compatible with the adjacent region natural heritage features. The development is proposed to utilize planned infrastructure and would result in range of employment uses. As the subject lands are occupied by natural heritage features (as identified and assessed through the SSWS), the remaining developable area has necessitated an efficient and compact design which balances all requirements. The proposed development would therefore comply with the objectives, requirements and planned function of the Urban Area designation.

Designated Greenfield Area

As identified above, lands designated within the *Urban Area* but located outside of the *Built-Up Area* are located within the *Designated Greenfield Area*. Development within the *Designated Greenfield Area* is required to achieve the following (amongst others) (Sec. 77 (2.4)):

	Section 77(2.4)	Response
a)	contribute towards achieving the development density target of Table 2 and the Regional phasing of Table 2a;	<i>The proposed development will specifically assist in achieving these targets as it will result in approximately 525 to 895 employees and an employment density of approximately 67 to 115 jobs per hectare.</i>
b)	contribute to creating healthy communities;	<i>The proposed development would offer new and unique employment opportunities which will ultimately enhance the natural heritage system. Additionally, as the proposed development is located in a planned employment area and in close proximity to other tourist generating developments (Toronto Premium Outlets), it lends itself to offering opportunities for new transit. The subject lands proximity to the Towns of Halton Hills and Milton as well as the City of Mississauga ensures that another employment use can be built in close proximity to existing and planned residential areas which therefore facilitates the creation of complete and healthy communities.</i>
d)	provide a diverse mix of land uses, including residential and employment uses to support vibrant neighbourhoods; and	<i>The proposed development is conceptualized to include an array of entertainment uses all of which have been confirmed to be employment generating. Further, this unique development is located in close proximity to</i>

		<i>similar uses which would create a vibrant mix of land uses which can operate symbiotically.</i>
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Development Requirements for Area Specific Plans

As set out in the ROP, major growth areas, including the development or redevelopment of communities as well as lands which contain solely employment uses are to develop in accordance with certain requirements. In accordance with the pre-consultation meeting (detailed above), the development is to outline how the proposed uses conform with all applicable Regional Official Plan policies. This includes demonstrating how the lands can be integrated into an Area-Specific Plan. The following sets out the requirements for Area-Specific Plans (Sec. 77(5)).

	Section 77(5) Policy	Response
a)	A general statement of the intended character of the area or community,	<i>The proposed development seeks to introduce a unique concept which advances the planned employment goals of the area to ensure a diverse employment and economic base. The subject lands are intended to evolve with a mix of employment uses including water park, place of entertainment, hotels and other compatible uses.</i>
b)	Boundaries of the area or community,	<i>The subject lands are bound by Steeles Avenue and the Hornby Presbyterian Cemetery to the south, Eighth Line and residential dwellings to the west and agricultural and natural heritage to the north and east.</i>
c)	Policies for the protection of the Regional Natural Heritage System and for the protection of public health and safety within hazard lands.	<i>As set out in the SSWS, the policies for the protection of the Regional Natural Heritage System and for the protection of public health and safety within hazard lands have been addressed. As required by ROP Policy 118(3), the Scoped SWS has demonstrated that there will be no negative impact to the RNHS as a result of the proposed development on the Subject Lands.</i>
d)	Capacity targets of population, housing units and employment, including targets for Affordable Housing,	<i>No residential is proposed for the subject lands. The proposed development will achieve the regional employment targets as it will result in approximately 525 to 895 employees and an employment density of approximately 67 to 115 jobs per hectare.</i>
e)	Land use patterns that promote mixed-use, compact, transit-supportive, walkable communities, including the locations of local facilities for social, cultural, recreational, educational and religious purposes,	<i>The proposed development has been designed to result in an efficient use of the subject lands which enhances the surrounding natural heritage system. Although future design exercises will occur, it is believed that the current development is proposed in a manner which will encourage</i>

		<i>walkability on and off the subject lands as well as promotes new locations for social and recreational opportunities.</i>
f)	<p>Location types and density of residential and employment lands that contribute to. Creating healthy communities through:</p> <ul style="list-style-type: none"> i. Urban design, ii. Diversity of land uses, iii. Appropriate mix and densities of housing, iv. Provision of local parks and open space v. Strengthening live-work relationship through a proper balance of residential and employment land uses, and vi. Promoting active transportation and public transit use. 	<p><i>The proposed development will achieve the regional employment targets as it will result in approximately 525 to 895 employees and an employment density of approximately 67 to 115 jobs per hectare.</i></p> <p><i>It is understood that as a unique development concept, it will be a focal point for the entire area. As such, through future planning exercises the proposed development will incorporate a high level of urban design for all development blocks in a manner which is compatible to the adjacent existing residential and planned employment uses. Additionally, specific design features are anticipated to be implemented which will facilitate the use of active transportation and public transit.</i></p>
f.1)	Consideration for land use compatibility in accordance with Regional and Ministry of the Environment guidelines,	<i>In accordance with the Regional Land Use Compatibility Guidelines, the proposed development aims to minimize adverse effects of “industrial, transportation and utility” uses that emit noise (vibration), odour or air pollution on sensitive uses (e.g. residential. Please see section below for further information on the compatibility of the proposed development with the surrounding uses.</i>
g)	Overall development density for the area or community and, if it is located within the Designated Greenfield Area, how this density will contribute towards achieving the minimum overall development density for Designated Greenfield Areas in the local municipality as set out in Table 2 and the Regional phasing as set out in Table 2a,	<i>The proposed development will achieve the regional employment targets as it will result in approximately 525 to 895 employees and an employment density of approximately 67 to 115 jobs per hectare. The proposed employment could be provided in a range of forms including executive, clerical, office, administration, labour, retail and others.</i>
h)	A transportation network that promotes public transit and active transportation, including a strategy for early introduction of transit services,	<i>As set out in the enclosed Traffic Impact Study, the proposed development does not require substantial improvements to the planned transportation network. The recommendations and conclusions confirm that the concept plan, as currently envisioned, can occur and that the local</i>

		<i>municipality should consider expanding transit opportunities to the surrounding area.</i>
i)	Development phasing,	<i>In accordance with ROPA 47 and the Minutes of Settlement, the subject lands are allowed to advance the timing of development beyond the current timing associated with the Phase 2B Employment Area. Further, the proposed Official Plan Amendment seeks to establish site-specific policies and be added to the Phase 1B Employment Area. This can be achieved as both the servicing and transportation improvements planned for the area are rapidly being advanced and are anticipated for construction in the short-term.</i>
j)	Stormwater management or if the scale of development justifies, a sub-watershed study as per section 145(9),	<i>As set out in the enclosed stormwater management report, the proposed development has been designed to adhere to the regional policies for stormwater management. Additionally, the development has been prepared in conjunction to the SSWS which assessed the proposed developments impact on the adjacent natural heritage system, with specific focus on stormwater management.</i>
k)	Environmental Impact assessments, if any part of the Regional Natural Heritage System is affected in an area not covered by a Sub-watershed study,	<i>The lands are located within an area which required the completion of a SSWS. Further details on that work have been provided in the sections below.</i>
l)	An Air Quality Impact Assessment based on guidelines under Section 143(2.1),	<i>This item was not requested through the pre-consultation meeting of through the Minutes of Settlement, however it will be addressed through the Phase 2B Secondary Plan.</i>
m)	Water and wastewater servicing plans,	<i>Please see submitted Functional Servicing and Stormwater Management report for further details on the proposed water and wastewater servicing.</i>
n)	Provision of utilities,	<i>Please see submitted Functional Servicing and Stormwater Management report for further details on the provision of utilities.</i>
o)	A fiscal impact analysis,	<i>A fulsome fiscal impact has not been completed, however, through the completion of the Employment Need Analysis it is confirmed that the benefit of the proposed development will reach beyond the local context. As the lands currently remain vacant, the economic benefits through resulting property taxes, development charges and other municipal revenue sources will provide a measurable improvement from the existing</i>

		<i>context. Additionally, as the development will be a regional tourism generator it will have immediate and long-lasting benefits to the local economy.</i>
p)	A community infrastructure plan, based on regional guidelines, describing where, how and when public services for health, education, recreation, socio-cultural activities, safety and security and Affordable Housing will be provided to serve the community, and	<i>Due to the nature of the proposed development, no public services are anticipated to be provided at this time.</i>
q)	An Agricultural Impact Assessment on potential impact of urban development on existing agricultural operations including the requirement for compliance with the Minimum Distance Separation formulae where an agricultural operation is outside the Urban Area.	<i>As the lands are located within the Urban Area and Regional Natural Heritage System, no Agricultural Impact Assessment is required. Through previous planning approvals, compliance with Minimum Distance Separation Formulae has been achieved.</i>

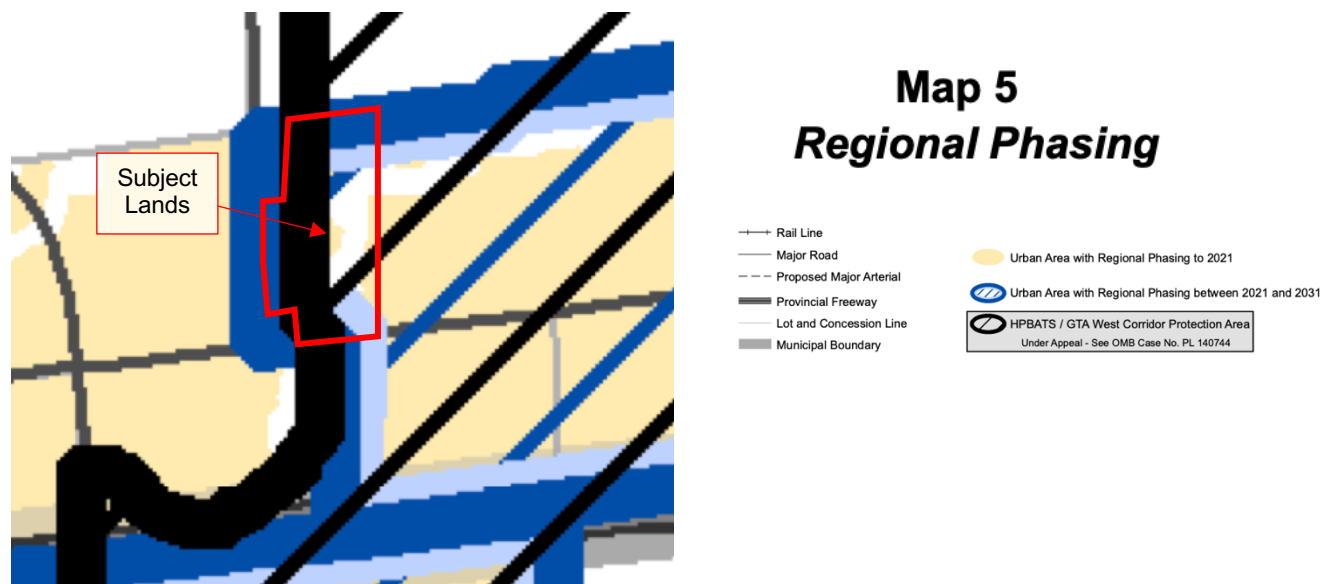
Regional Phasing

As set out in Sec 77(16), local municipalities are to phase development to the year 2031, in accordance with Map 5 (See Figure 6). For developments to advance in development prior to 2021-2031, the following is required to be addressed (Sec. 77(17)):

	Section 77(17)	Response
a)	<p>approval by Regional Council of a financial and implementation plan, including financial commitment by the private development sector to absorb its share of the cost of the provision of the necessary infrastructure and human services as permitted by applicable legislation. The financial and implementation plan shall be based on:</p> <ul style="list-style-type: none"> i. Area-Specific Plans or a generalized land use map in the Local Official Plan that meets the requirements of Section 77(5) showing land use designations and community structure approved by the Local Municipality, and ii. the municipal portion of the Joint Infrastructure Staging 	<p><i>As set out in the above section, the proposed development meet the requirements of Section (77(5) and as the proposed development results in a confirmed employment generating use, it complies with the local municipalities planned function.</i></p> <p><i>Please see the enclosed Functional Servicing Report for further details on how the proposed development achieves the planned municipal infrastructure staging.</i></p>

	Plan as described in Section 77(12);	
b)	approval of applicable development charge by-laws;	<i>Not applicable. Development Charges will be paid following the completion of future planning exercises.</i>
c)	determination by Regional Council that the intensification targets in Table 2, and the Regional phasing in Table 2a as monitored through Sections 77(2.2) and 77(2.3), can be reasonably achieved;	<i>The proposed development will achieve the regional employment targets as it will result in approximately 525 to 895 employees and an employment density of approximately 67 to 115 jobs per hectare. As set out in the previous sections, the proposed development achieves the intensification and employment targets.</i>
d)	Regional phasing, as outlined in Table 2a, shall be used as a guiding principle for the movement between phases of development and shall apply to Sections 77(5), 77(12) and 77(15);	<i>Through ROPA 47 and the Minutes of Settlement, the proposed development is permitted to expedite land use planning approvals subject to the completion of certain technical studies. Therefore, the planning regional phasing is achieved and is technically supported by the enclosed submission materials.</i>
e)	unused Regional phasing from Table 2a will be carried forward to following years to achieve the Regional phasing outlined in Table 2a	<i>See above response.</i>

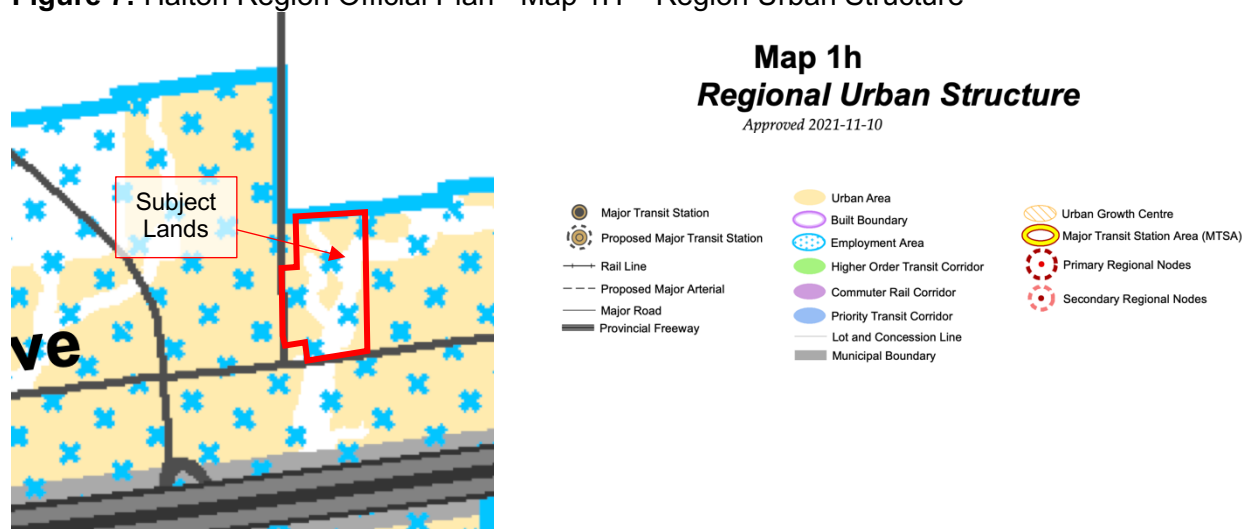
Figure 6: Halton Regional Official Plan - Map 5 – Regional Phasing



Regional Urban Structure

Within the *Urban Area* designation, the ROP (as shown on Map 1H) outlines several structural components including *Strategic Growth Areas*, *Regional Employment Area*, *Built-Up Areas* and *Designated Greenfield Areas*. The subject lands are identified with an *Employment Area* overlay (See Figure 7). The Regional Structure is designed to establish a structure and hierarchy where population and employment growth in the *Urban Area* can be directed to. Further, *Regional Employment Areas* are identified and are intended to be protected for the long-term, while ensuring flexibility to the role and function of these areas in relation to the economy of the Region (Sec. 78.1).

Figure 7: Halton Region Official Plan - Map 1H – Region Urban Structure



Employment Areas

The ROP provides direction on the objectives of lands designated as *Employment Area* (Sec. 83.1). The following sets out the responses to achieving the objectives.

	Section 83.1 Policy	Response
1)	To ensure the availability of sufficient land for employment to accommodate forecasted growth to support Halton's and its Local Municipalities' economic competitiveness.	<i>The subject lands are currently planned to be developed with employment generating uses. These lands, alongside the broader Premier Gateway Employment Area, are intended to accommodate much of the forecasted employment growth. The proposed development achieves this goal through the proposed employment and density. The proposal also provides opportunity to expand the Town's economic competitiveness by facilitating a development which offers a regional tourism destination.</i>
2)	To provide, in conjunction with those employment uses within the residential and mixed use areas of	<i>Although the proposed development is not seeking residential or mixed uses, it is located within close proximity to urban</i>

	the communities, opportunities for a fully-diversified economic base, including maintaining a range and choice of suitable sites for employment uses which support a wide range of economic activities and ancillary uses, and take into account the needs of existing and future businesses.	<i>centres including the Towns of Halton Hills, Milton and City of Mississauga. As such, the proposed major employment generator and tourist destination will provide opportunities for a diverse economic base which is supported by a range of economic activities.</i>
3)	To locate Employment Areas in the vicinity of existing major highway interchanges and rail yards, where appropriate, within the Urban Area.	<i>The subject lands are located in close proximity to Highways 401 and 407.</i>

The ROP sets out the following policies to further regulate employment areas (Sec. 83.2):

	Section 83.2 Policy	Response
1)	Prohibit residential and other non-employment uses including major retail uses in the Employment Areas except: <ul style="list-style-type: none"> a) to recognize uses permitted by specific policies of a Local Official Plan on December 16, 2009; or b) for institutional uses identified in a Local Official Plan, as a result of a detailed study that sets limits and criteria on such uses based on the following principles: 	<i>The proposed development is not seeking to permit residential uses or institutional. As detailed in the sections below, the proposed Official Plan Amendment is intended to establish land uses which are compatible with the planned function of the area and support the land use planning conducting in support of the Premier Employment Gateway Area.</i>
2)	Plan for, protect and preserve the Employment Areas for current and future use.	<i>As set out above, the proposed development has been confirmed to be a major employment generator. As such, it will facilitate the protection and preservation of the Employment Area for future use.</i>
3)	Ensure the necessary infrastructure is provided to support the development of the Employment Areas in accordance with policies of this Plan.	<i>As set out in the accompanying Functional Servicing Report and Traffic Impact Study, the proposed development can occur through the planned infrastructure for the area.</i>
5)	Require Local Municipalities to promote intensification and increased densities in both new and existing Employment Areas by facilitating compact, transit-	<i>The proposed development will achieve the regional employment targets as it will result in approximately 525 to 895 employees and an employment density of approximately 67 to 115 jobs per hectare.</i>

	supportive built form and minimizing surface parking.	
6)	Subject to Section 77(7), designate lands where appropriate in the vicinity of existing or planned major highway interchanges, ports, rail yards and airports for employment purposes that rely on this infrastructure once these lands are included in the Urban Area.	<i>Due to the lands proximity to Highway 401, they have designated for employment purposes. The proposed development therefore achieves this as it has been confirmed to a major employment generating development.</i>

Urban (Water Supply and Wastewater Treatment) Services

In accordance with the ROP, the Region seeks to ensure the adequate provision of an economic level of urban services to achieve development objectives which include meeting existing and future requirements, providing a staged program for the improvement and extension of services which are within the financial capabilities and meet or exceeds provincial environmental standards (Sec. 88). The ROP requires that all new development within the urban area be on the basis of connection to Halton's municipal water and wastewater systems which meet the servicing allocations available for water supply and wastewater treatment (Sec. 89).

The ROP also requires that that provision of urban services minimize the number of disturbances to the Regional Natural Heritage System (Sec. 89.23)

As set out in the enclosed Functional Servicing Report, the development is proposed to connect to the existing and planned water and wastewater systems. The report also confirms that the proposed development servicing requirements can be satisfied through the servicing allocations available. In accordance with the completed SSWS, the proposed development has been assessed to avoid or minimize any impacts to the Regional Natural Heritage System identified on the subject lands. Please see the above mentioned reports for further details on how the proposed development has been designed to comply with all regional policies relating to servicing and stormwater management.

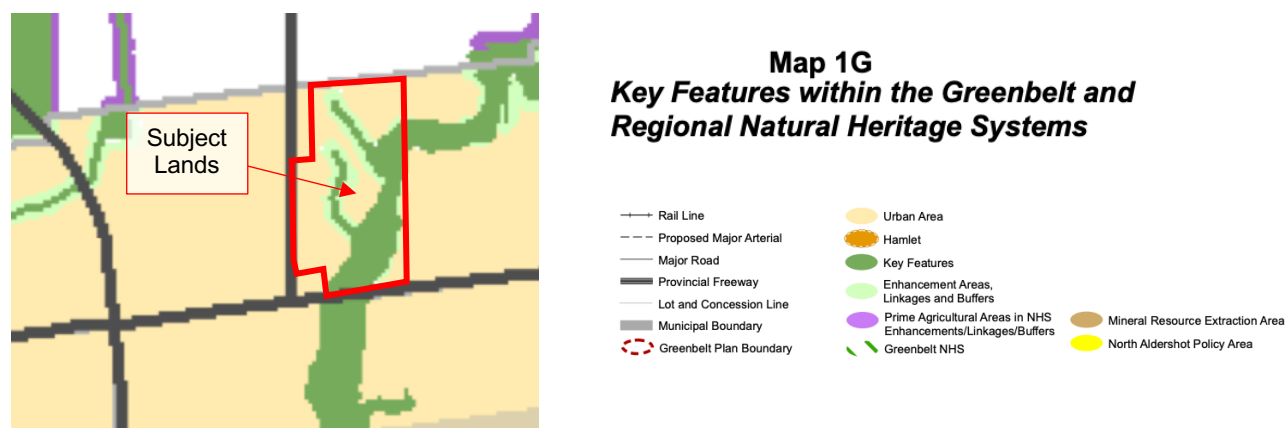
Natural Heritage System

As identified above, portions of the subject lands are identified as *Regional Natural Heritage System* (See Figure 8). The Regional Natural Heritage System is designed to protect and enhance natural heritage features and functions and consists of the following components (Sec. 115.3):

1. Key Features, which include:
 - a. Significant habitat of endangered and threatened species,
 - b. Significant wetlands,
 - c. Significant coastal wetlands,
 - d. Significant woodlands,
 - e. Significant valleylands,
 - f. Significant wildlife habitat,
 - g. Significant areas of natural and scientific interest,
 - h. Fish habitat,
2. Enhancements to the key features include centres for biodiversity

3. Linkages
4. Buffers
5. Watercourses that are within a conservation authority regulation limit or that provide a linkage to a wetland or significant woodland,
6. Wetlands other than those considered significant under Section 115.3(1)(b).

Figure 8: Regional Official Plan - Map 1G – Key Features within the Greenbelt and Regional Natural Heritage System



It is important to note, that the ROP permits the refinement, with additions or deletions of the boundaries of the Regional Natural Heritage System through (Sec 116.1):

- a) A sub-watershed study accepted by the Region and undertaken in the context of an Area-Specific Plan;
- b) An individual Environmental Impact Assessment accepted by the Region, as required by this Plan; or,
- c) Similar studies based on terms of reference accepted by the Region.

For lands designated as Regional Natural Heritage System, the Region provides direction on a systems based approach (Sec. 118(2)):

As set out in the SSWS, the following describes how the proposed development complies with the Regional policies on the Natural Heritage System. For further details, please see the second submission of the SSWS which has been enclosed within this submission:

- *The proposed development has been prepared in accordance with the Minutes of Settlement in order to fulfill Regional OP policy 145(9) which reads:
145(9) Require the Local Municipalities to carry out, prior to or as part of an Area Specific Plan process where applicable, Sub-watershed Studies for those sub-watershed areas identified under Section 145(8) to:*
 - a) *provide an inventory of existing geology, hydrology, hydrogeology, limnology, fish habitats and other environmental data,*
 - b) *establish water quality targets in accordance with the Watershed Plan,*
 - c) *determine base flows to maintain water quality and existing ecological conditions,*
 - d) *recommend appropriate stormwater management techniques in accordance with provincial guidelines,*
 - e) *refine the boundaries of the RNHS and identify other constraints under which development may not be permitted, in accordance with policies of this Plan,*

- f) *provided detailed guidelines for development design and construction, and*
 - g) *establish procedures for monitoring water quality and quantity before, during and after development.*
- *The study was completed using a systems-based approach, as required in ROP Policy 118(2). Although the Scoped SWS has been carried out by a private proponent, rather than the local municipality, all of the components listed above have been addressed in accordance with the approved Terms of Reference. Specifically, this study has provided an inventory of the geology, hydrogeology, natural hazards and natural heritage features and functions and has established water quality and quantity targets necessary to maintain the existing and proposed natural heritage features and functions on the Subject Lands while also meeting the provincial requirements related to stormwater management. The base flows have been characterized to ensure maintenance of water quality and existing ecological conditions.*
- *The Natural Heritage System has been refined in accordance with ROP policies 145(9)e) and 116.1(a). The refined RNHS within the Primary Study Area consists of the following Key Features:*
 - *Significant Valleylands (associated with ESMC1)*
 - *Significant Wildlife Habitat*
 - *Significant Wetlands associated with ESMC1 that make an important ecological contribution to the RNHS as per Section 276.5(3) of the ROP*
 - *Fish Habitat*
- *In addition, the following components of the RNHS are also included within the refined RNHS:*
 - *Linkages (along ESMC1)*
 - *Buffers (adjacent to all Key Features, wetlands and erosion/flooding hazards);*
 - *Wetlands other than those considered significant under Section 115.3(1)b) of the ROP (associated with TESMC1 and HDFs H1S1M H1S2, H2S1, H2S1A-C)*
 - *Regional Storm Flood Plan*
 - *Watercourses that are within a Conservation Authority Regulation Limit (TESMC1 and ESMC1)*
- *Although not specifically considered as Key Features or components of the RNHS, the following additional features and functions are included within the refined RNHS:*
 - *Erosion Hazards – Meander Belt and physical/Stable Top of Bank*
 - *Headwater Drainage Features*
- *Policy 118(2) prohibits development and site alteration within significant wetlands, significant coastal wetlands, significant habitat of endangered and threatened species and fish habitat except in accordance with Provincial and Federal legislation or regulations. As noted above, the only significant wetlands on the Subject Lands are within the ESMC1 valley. No development is proposed within that regionally significant wetland.*
- *Proposed development within significant habitat of endangered and threatened species will be addressed through the accepted MECP approach that involves removal and re-creation of habitat elsewhere. Correspondence has been initiated with MECP in this regard and all required permitting processes will be followed. This is a standard and commonly accepted approach to the type of significant habitat of endangered and*

threatened species on the Subject Lands and the Study Team does not anticipate any issues with removing this habitat and re-creating it elsewhere. As such, there will be no impact on the developable limits of the Subject Lands as identified through the Scoped SWS.

- *Finally, the only proposed development in the vicinity of fish habitat will be the span crossing of TESMC1, the removal of the existing farm lane crossing of TESMC1, directional drilled servicing beneath TESMC1 and the stormwater outfalls to ESMC1. The road crossing of TESMC1 has been designed to avoid any alterations to the watercourse and the services will be directionally drilled beneath the watercourse so there will be no development within fish habitat, thereby meeting Policy 118(2). Similarly, outfalls throughout the Region are designed to direct stormwater flows into watercourses that contain fish habitat and can be done on the Subject Lands without encroaching into fish habitat. As such, Policy 118(2) has been met through the Scoped SWS.*
- *As required by ROP Policy 118(3), the Scoped SWS has demonstrated that there will be no negative impact to the RNHS as a result of the proposed development on the Subject Lands.*

Economic Development

The ROP seeks to create a competitive economic environment that promotes entrepreneurship, new business formation which strengthens and diversifies the economic base of the Region. The ROP sets out that the necessary infrastructure is to be provided to support the timely development of Employment Areas. The ROP also specifically, promotes the tourism industry including attractions, recreation and others (Sec. 169).

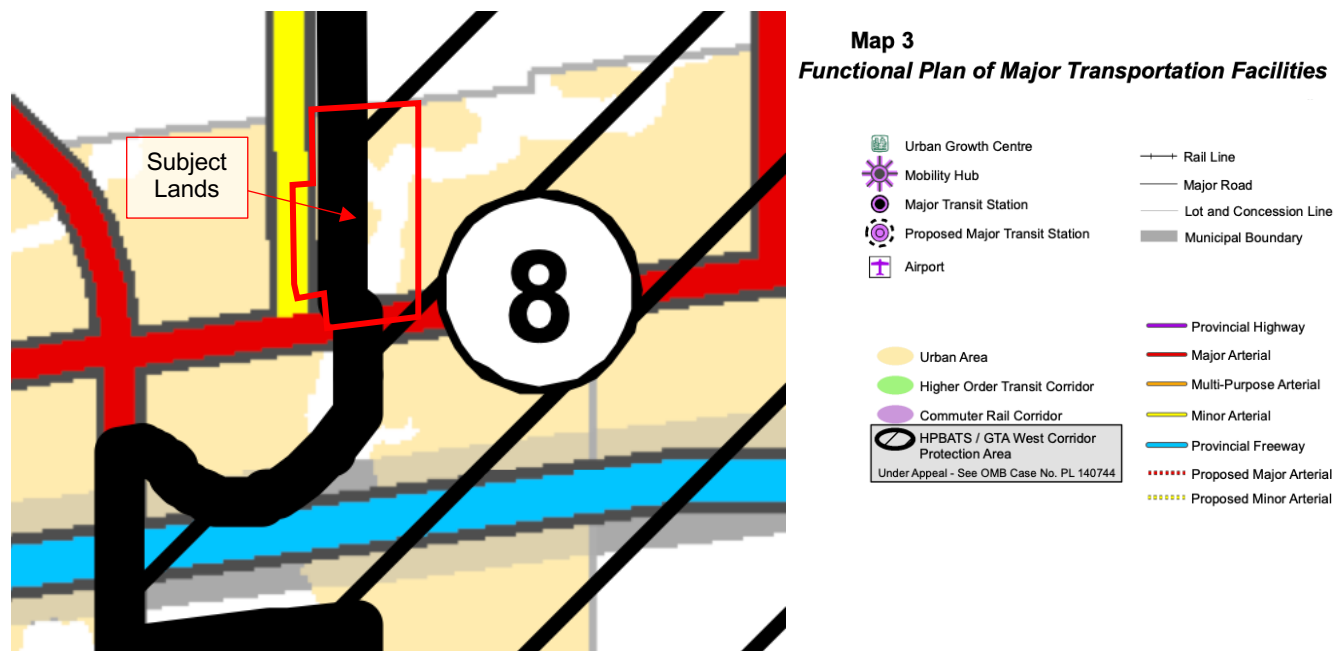
Further, the ROP includes provisions which promote Halton as a tourist and recreational destination for both its own residents and outside visitors. This includes advancing opportunities for major four-season outdoor and indoor recreational facilities (Sec. 170.16).

The proposed development provides an opportunity for the Region to achieve its goals and objectives pertaining to tourism. In addition to being a major employment generator, the proposed development has been identified to be located in an area which possesses population and expenditure characteristics necessary for the successful operation. It is important to note that the proposed development offers operation synergies with the Toronto Premium Outlets in that visitors to the outlets could stay at the proposed hotel and visitors to the waterpark and hotel can shop out the outlets.

Transportation

The ROP looks to provide a safe, convenient, accessible, affordable and efficient transportation system which minimizes the impact on the environment. This system is to be balanced in a manner which reduces automobile dependence and creates a competitive public transit system and promotes active transportation (Sec. 172). Within the ROP, a Function Plan of Major Transportation Facilities is provided to meet the travel demands beyond 2021. In accordance with Map 3, the subject lands abut Eighth Line which is identified as a Minor Arterial Road and Steeles Avenue which is identified as a Major Arterial Road. The subject lands are also located adjacent to the HPBATS/GTA West Corridor Protection Area (See Figure 9).

Figure 9: Halton Regional Official Plan - Map 3 – Functional Plan of Major Transportation Facilities



As set out in the Traffic Impact Study, the proposed development has been designed to accommodate the planned functions and general design criteria for Eighth Line and Steeles Avenue. It is identified that the proposed development can be integrated within the current operations of Steeles Avenue as well as the planned operations of Eighth Line which is subject to an ongoing environmental assessment.

Implementation

The ROP establishes that for all development applications, the Region will comment on the conformity to the Regional Plan. In the case of Local Official Plan amendments, the Region has exempted these applications from its approval subject to conformity with the exemption criteria and matters of provincial interest (Sec. 184).

As set out in the above sections, the report has been prepared to demonstrate the proposed developments conformity to the policies of the ROP.

6.3.1 Region of Halton Official Plan Review & ROPA 48

In October 2016, Halton Region completed the first phase of the Regional Official Plan Review which outlined the workplan to be followed. Since that time extensive analysis was completed to prepare discussion papers on topics of climate change, integrated growth management, natural heritage, North Aldershot and the rural and agricultural system. These papers were completed in 2021. Included within this work was the completion of growth concepts which established how and where Halton Region could grow to meet the Provincial growth targets to the planning horizon of 2051.

The Regional Official Plan Review is currently in the third phase which includes the release of key policy directions including the preferred growth concept which will involve the preparation and adoption of draft regional official plan amendments and conformance exercises to Provincial policy. On February 16, 2022, Regional Council adopted a modified preferred growth concept which directed staff to prepare a Regional Official Plan Amendment that advances a modified preferred growth concept in two phases:

- Population and employment growth before 2041 will be directed to the existing approved urban boundary.
- A clear framework will be provided for when and how planned growth between 2041 and 2051 should be distributed. This framework will be based on principles of minimizing land consumption, making the most efficient use of land and infrastructure, and achieving other principles of the Growth Plan.
 - The findings of the Affordable Housing Task Force, Natural Heritage and Water Resources Impact Assessment and Agricultural Impact Assessment will be considered in the preparation of the policy framework for growth post-2041.
 - The specific distribution of growth post-2041 will be defined in a Regional Official Plan Amendment (ROPA) prior to or in parallel with the next statutory 5-year OP review.

The Motion also directs staff to:

- schedule a Statutory Public Meeting and Open House to obtain comments on an updated draft ROPA 49 no later than April 30, 2022; and
- prepare its recommendation report and bring it forward to Regional Council, so ROPA 49 could be adopted and forwarded to the Province for approval to meet the July 1, 2022 conformity deadline, subject to being directed by the Minister to meet an alternative date, as requested by the Region and other municipalities.

ROPA 48

On November 10, 2021, the Minister of Municipal Affairs and Housing approved Regional Official Plan Amendment No. 48 (ROPA 48) which effectively maintains the vision for Halton Region's Urban Structure. In accordance with the Staff Report presented to Regional Council following the approval of ROPA 48, the following key changes to the Regional Official Plan came into effect:

- New policies and mapping identifying a Regional Urban Structure and a hierarchy of Strategic Growth Areas to which population and employment growth will be directed;
- Adjusted boundaries for the Urban Growth Centres in Burlington, Milton, and Oakville;
- Delineated boundaries and supporting policies for Major Transit Station Areas in Burlington (Aldershot GO, Burlington GO, and Appleby GO), Halton Hills (Acton GO, Georgetown GO), Milton (Milton GO), and Oakville (Bronte GO, Oakville GO);
- Identified Primary and Secondary Regional Nodes derived from the Local Urban Structures that have a role in accommodating intensification and supporting transit;
- Identified specific minimum density targets for Urban Growth Centres and Major Transit Station Areas and general targets for the overall proportion of residents and jobs to be achieved over the long-term within certain Strategic Growth Areas;

- Removal of the Regional Employment Area overlay from a number of strategic locations supportive of the Regional Urban Structure; and
- other new and updated policies that provide direction and support for the Regional Urban Structure, including planning for Major Transit Station Areas, planning for employment in Strategic Growth Areas, and ensuring land use compatibility.

Of particular relevance to the proposed development is the adoption of the allocation of population and employment growth to the 2051 planning horizon, which is currently based upon on a 2031 planning horizon. Specifically, Table 1 of the ROP has been updated as follows:

Table 1						
	Population			Employment		
Municipality	2016	2031	2051	2016	2031	2051
Burlington	189,000	193,000	*	98,000	106,000	*
Oakville	200,000	255,000	*	103,000	127,000	*
Milton	113,000	238,000	*	39,000	114,000	*
Halton Hills	63,000	94,000	*	23,000	43,000	*
Halton Region	565,000	780,000	1,100,000	263,000	390,000	500,000
* The population and employment forecasts and plan horizon of 2031 contained in Table 1 will apply to all planning matters in Halton Region, including lower-tier planning matters until Halton Region has distributed the 2051 population and employment to the Local Municipalities, to replace the 2031 forecasts and to be determined through the <i>municipal comprehensive review</i> .						

ROPA 48's relevance to the proposed development is that it largely results in updated population and employment targets for the Region to achieve by 2051. The proposed development has been identified to result in approximately 525 to 895 employees and an employment density of approximately 67 to 115 jobs per hectare. Through the proposed employment and density, the development will assist the Region in achieving its employment targets to 2051.

6.3.2 Halton Region Land Use Compatibility Guidelines

Section 143 (10) of the ROP requires the development of Land Use Compatibility Guidelines whose purpose is to:

“develop, in consultation with the local municipalities, the Province, the Federal government and the railway agencies, Land Use Compatibility Guidelines to minimize the *adverse effects* of noise, vibration, odour and air pollution from industrial, transportation and *utility* sources on *sensitive land uses*, including the application of separation distance between these non-compatible uses.”

As such, the Region has prepared the Land Use Compatibility Guidelines to identify how land use compatibility issues can be addressed by municipalities during a development proposal involving applications such as Official Plan or Zoning By-law amendments. This documents outlines the various provincial and regional legislation which regulate the emissions from industrial, transportation and utility sources to reduce effects on sensitive uses (residential).

The Ministry of Environment (MOE) maintains guidelines (D-Series) to assess land use compatibility during development applications that require re-designation. They are only applicable when an industrial use requires a land use amendment and is proposed to be located near an existing sensitive residential use. While this is applicable to certain industrial uses, the proposed waterpark and hotel development does not fall within the classes established.

However, the requirements for a Class III Facility is to submit an application for Compliance Approval through the Ministry of Environment. It is proposed that, if required, the application for Compliance Approval would occur as part of a future Zoning By-law Amendment application when specific details concerning the proposed development are known.

The compatibility guidelines establish that separation distances are effective in reducing adverse effects. The zoning by-law and site plan control are both identified as useful measures which include regulations that can assist in this manner (i.e. setbacks, acoustic barriers, building design). However, the proposed development is only conceptual at this stage and will be subject to extensive design exercises that will be evaluated against the applicable zoning by-law and site plan control by-law. Please note, the proposed development has been specifically sited to be as far away from the existing sensitive uses (residential lots) as a means to reduce potential conflict between the uses. Similar considerations are expected to be employed through future refinements of the proposed development concept.

6.4 Halton Hills Official Plan

The Town of Halton Hills (Local) Official Plan (LOP) came into full force and effect in March 2008, save for except several deferrals. Following that, the Town commended the 2010 Official Plan Review which resulted in several Official Plan Amendments (OPA No's 7, 9, 10 – Growth Plan Conformity Amendments, No. 5, 6, 14, 15, 19 - Town-Initiated Studies, and Amendments arising from ROPA 38 – Rural and Environmental Policy Matters). Please note, OPA 10 (further described in the sections below) has been incorporated into the review of this report as it is subject to appeals not related to the subject lands.

Community Vision, Goals, and Strategic Objectives

As set out in the LOP:

“The primary purpose of the Official Plan is to provide the basis for managing growth that will support and emphasize the Town’s unique character, diversity, civic identity, rural lifestyle, natural heritage and cultural heritage and to do so in a way that has the greatest positive impact on the quality of life in Halton Hills.”

To achieve this, the LOP outlines policies, guidelines and regulations which direct growth and development to manage change up to 2031. Specifically, the LOP sets out the following population and employment targets:

LOP: Table 1A – Population and Employment Targets		
Year	2006	2031
Population	58,000	94,000
Employment	20,000	43,000

The proposed development has been identified to result in approximately 525 to 895 employees and an employment density of approximately 67 to 115 jobs per hectare. These calculations will assist the Town in achieving its employment targets. As well, the proposed development will facilitate the creation of complete communities, which in turn will assist in achieving the population targets.

Goals and Strategic Objectives

The LOP sets out several overarching strategic goals to direction on fundamental priorities for the Town. The applicable objectives are as follows:

A2 – Goals and Strategic Objectives		
Policy Number	Strategic Objective	Response
A2.1.2	Natural Heritage and Water Resources – Strategic Objectives	
a)	To protect significant natural heritage and hydrologic features and their associated ecological functions.	<i>As set out in the SSWS, the policies for the protection of the Regional Natural Heritage System and for the protection of public health and safety within hazard lands have been addressed. As required by ROP Policy 118(3), the Scoped SWS has demonstrated that there will be no negative</i>

		<i>impact to the RNHS as a result of the proposed development on the Subject Lands.</i>
b)	To ensure that a comprehensive understanding of the natural environment, including the values, opportunities, limits and constraints that it provides, guides land use decision-making in the Town.	<i>In accordance with the above, the proposed development has incorporated the findings and recommendations from the SSWS into the proposed development concept and will do so as the plan is refined through future planning applications.</i>
c)	To require that land use planning contributes to the protection, maintenance and enhancement of water and related resources and aquatic ecosystems on an integrated watershed management basis.	<i>See responses above.</i>
f)	To promote the retention of natural heritage features so that they can be enjoyed by future generations and serve as a legacy of the community's desire to protect their role and function.	<i>See responses above.</i>
i)	To prohibit development that will result in a negative impact to the critical functions and processes of watercourses, lakes, aquifers and wetlands.	<i>See responses above.</i>
m)	To promote land use decisions that incorporate water conservation measures and the efficient use of water resources on a watershed and sub-watershed basis.	<i>See responses above.</i>
A2.2.2	Growth and Settlement – Strategic Objectives	
a)	To direct the majority of new residential and employment growth to Urban Areas, where full services exist.	<i>The subject lands are planned to accommodate the Town's supply of employment uses. Further, the subject lands are planned to receive full municipal services.</i>
h)	To encourage the establishment of an optimum balance between residential and non-residential assessment in the Town.	<i>The subject lands proximity to several urban centres will assist the Town in facilitating the creation of complete communities.</i>
i)	To ensure that all urban development is appropriately phased and in conjunction with required infrastructure improvements where appropriate.	<i>Through considerable coordination with the Town, Region and Conservation Authority, the development of the subject lands has been completed in accordance with specific though on phasing,</i>

		<i>municipal infrastructure delivery timing and is alignment with strategic goals.</i>
A2.7.2	Economic Development – Strategic Objective	
a)	To ensure that the quality and character of life in the Town is sustained and improved in context of the Greater Toronto Area and the global economy.	<i>The proposed development will advance the goals of the Premier Gateway Employment Area in that it will offer a wide variety of employment while expanding tourism opportunities which will be utilized by residents and visitors.</i>
d)	To encourage the development of the business infrastructure required to attract uses that will contribute to the quality of life in the Town.	<i>The proposed development is seeking to create a unique business opportunity that aims to expand the recreation and tourism services currently available.</i>
f)	To establish, maintain and enhance employment areas that provide a range of job opportunities and a broad range of commercial and service facilities that meet the needs of residents of the town and the wider area.	<i>The proposed development has been specifically designed to provide a form that achieves a variety of employment-based uses and is identified as a major employment generator. The proposed development will not preclude the advancement of the area but rather act harmoniously.</i>
m)	To encourage the protection of the Town's natural attributes, such as its rural character and its natural heritage features in order to maintain and enhance recreational and tourism opportunities that rely upon these attributes.	<i>The proposed development has been prepared in recognition of the SSWS which has been specifically completed to ensure the protection of the natural heritage features. Through the development of these lands, various strategies which utilize the natural heritage system will be employed in an appropriate manner.</i>
A2.8.2	Infrastructure – Strategic Objectives	
a)	To consider the economics of providing services to the people of the Town as part of the review of any development proposal to ensure that the development pattern is efficient and does not lead to a decline in the level of municipal service.	<i>In accordance with the submitted Functional Serving Report, a servicing and stormwater management strategy has been prepared which functions within the planned facilities and ensures that the development can occur in an efficient and cost-effective manner.</i>
b)	To ensure that all necessary infrastructure required to serve the urban area is built as necessary prior to, or coincident with, urban development.	<i>See response above.</i>

Land Use Concept

The LOP divides land use designations into three categories: Environmental and Open Space, Urban Area (including the Premier Gateway Employment Area) and the Agricultural / Rural Area. The Environmental and Open Space category includes majority of natural heritage features including Greenlands A, Greenlands B, Greenbelt Greenlands, Escarpment Natural Area and a single-tier Greenlands designation within the urban areas. The Urban Area consists of Living Area designations (primarily for residential purposes within the urban areas), Community Area designations (serve primarily community focal points) and Employment Area designation (amongst others). The Employment Area designation is primarily used to support industrial uses eligible for municipal services within Acton, Georgetown and the Premier Gateway Employment Area.

Environmental and Open Space Land Use Policies

The LOP recognizes the importance of protecting the natural heritage system by establishing a Greenland system which implements the Regional Natural Heritage System contained within the ROP. The Greenland designation within Phases 1B and 2B of the Premier Gateway Employment Area, shown on Schedule A8 of the LOP, is subject to Sections D.3.5.4.4.4, D6.3.4, and D6.4.4.4.4. (Sec. B1B). Please note, adjacent lands to natural heritage features within which potential impacts of a development proposal must be considered. Including:

- 120 metres of the boundary of a provincially significant wetland;
- 50 metres of the boundary of a regionally significant wetland;
- 50 metres of the boundaries of an Environmental Sensitive Area;
- 50 metres of the significant habitat of an endangered or threatened species;
- 50 metres of the boundary of a significant woodland;
- 50 metres of the boundary of a significant valleyland (and others).

No development shall be permitted on adjacent lands unless a sub-watershed study is completed and approved by Council, subject to the comments of the appropriate agencies. Provisions relating to watershed and sub-watershed studies are contained within section C7 of the LOP.

As shown on Schedule A8 of the LOP (see Figure 10), the subject lands are designated “Greenlands”. In accordance with Sec. D3.5.4.4.4, the “Greenlands” designation is subject to the specific ROP policies which have been evaluated and responded within the SSWS.

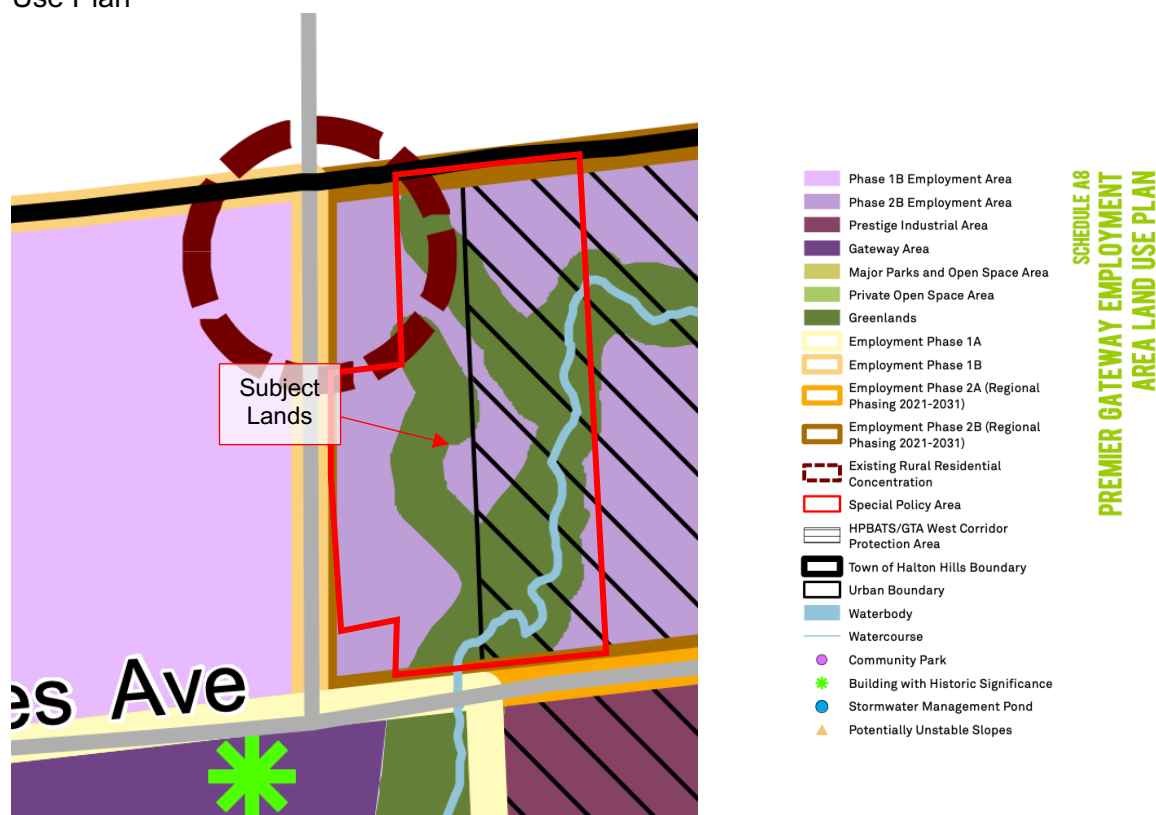
As set out in the SSWS, the Greenlands designation within the Town’s OP is consistent with the Region’s NHS limits. As such, a part of the Official Plan Amendment associated with these lands, the Greenlands designation will be refined to incorporate the same components as outlined above in the SSWS. The proposed RNHS is consistent with the Natural Heritage System policies of the Premier Gateway Employment Area Phase 1B. Specifically, as outlined in Policy H5A.7.4, the RNHS fulfills the following requirements:

- *Protects areas of environmental significance and areas that contain natural hazards including valleylands, wetlands and watercourses (H5A.7.4.1)*
- *Ensures that the NHS will be resilient to the impacts of adjacent urban development and climate change by achieving enhanced ecological and hydrologic features and functions (H5A.7.4.1)*
- *Reflects a systems approach to ensure protection, preservation, and enhancement of Key Features, buffers and linkages to maintain biological diversity (H5A.7.4.2)*

- Only essential transportation facilities (i.e., one crossing of TESMC1) is proposed (H5A.7.4.3)
- Buffers have been provided in accordance with Policy H5A.7.4.9. Specifically:
 - 15m from the greatest hazard (Regional Storm flood plain, meander belt or stable top of bank)
 - 30m from the bankfull channel of cold, cool and warm water sportfish watercourses
 - 30m from wetlands.

Since the RNHS within the Extended Study Area is still considered preliminary until such time as the Phase 2B SWS is complete, refinements to the RNHS are not recommended at this time. As such, for those lands within the Premier Gateway Employment Area, the Greenlands designation will remain unchanged. Similarly, for those lands within the Agricultural Area designation in the Extended Study Area, no changes are recommended to the Greenlands designation.

Figure 10: Halton Hills Official Plan – Schedule A8 – Premier Gateway Employment Area Land Use Plan



Urban Land Use Policies

Employment Areas

The Employment Area objectives set out to ensure sufficient land is available for the creation of diverse employment opportunities, ensures the Town is positioned to accommodate new and expanded business activities, ensure new industrial development occurs in an orderly manner, streamlines the approval process for employment development and promotes intensification and increased densities of new employment areas.

The proposed development achieves the stated Employment Area objectives as it is proposed on lands which have been confirmed to have sufficient infrastructure, will result in a major employment development, does not preclude the planned evolution of the surrounding employment area and expands the areas tourism opportunities. The proposed development has been identified to result in approximately 525 to 895 employees and an employment density of approximately 67 to 115 jobs per hectare. These calculations will assist the Town in achieving its employment targets.

Premier Gateway Employment Area Phase 1

The Premier Gateway Employment Area Phase 1 is intended to develop with a range of industrial, office, commercial, institutional uses on full municipal services. Future development is to be shaped around the tributaries of the Sixteen Mile Creek watershed which are to be a central element (Sec. D3.5). Due to its geographic location, this area offers new employment development with accessibility and visibility from the broader which requires it to be designed as a gateway into the Town. Development is to occur in an orderly manner and is to be provided with appropriate water and wastewater services. This area contains several designations including the “Phase 1B Employment Area” designation which is applied to the lands north of Steeles Avenue between the Greenbelt Plan and Eighth Line.

Phase 1B Employment Area

The *Phase 1B Employment Area* designation is to accommodate growth to the 2021 planning horizon and is to be developed as a major employment area. Prior to development being approved, a Secondary Plan is to be completed which includes the completion of a Sub-watershed Study.

As set out in the below section, the proposed development will be redesignated to “Phase 1B Employment Area. As further described in the previous sections, the proposed development will be developed on full municipal services and will include a range of uses some of which are envisioned within the Phase 1 Premier Gateway Area. Additional uses are proposed which have been confirmed to be employment generating and through the proposed development will ensure that it will be developed as a major employment area. Through future planning applications, compliance with the City’s urban design policies will be demonstrated. Please see sections below for further details on the completion of the Sub-Watershed Study.

Designated Greenfield Areas

The Designated Greenfield Area is comprised of all lands within the Urban Areas, which are outside the Built Boundary and include the entire Premier Gateway Employment Area (Sec. D6.1). The minimum development density, measured across the entire area, is 39 residents and jobs combined per gross hectare. Phases 1B and 2B Employment Areas will be planned at a density to achieve the minimum development density over the entire area.

The proposed development has been identified to result in approximately 525 to 895 employees and an employment density of approximately 67 to 115 jobs per hectare. These calculations will assist the Town in achieving the residents and jobs targets measured across the Designated Greenfield Area.

Premier Gateway Employment Area Phase 2

The *Premier Gateway Employment Area Phase 2* is intended to accommodate employment growth between 2021 and 2031 and is generally located on both the north and south sides of Steeles Avenue between Eighth Line and the City of Brampton. This area is divided into several designations including the *Phase 2B Employment Area* (Sec. D6.4.2). Development within this area is to occur within two phases and shall be in accordance with Sec. F10.4 of the LOP.

Phase 2B Employment Area

In accordance with Schedule A8 of the LOP, the subject lands are designated *Phase 2B Employment Area* (See Figure 10). Development within areas designated as *Phase 2B Employment Area* are intended to be subject to additional analysis including:

- a) A Joint infrastructure Staging Plan in accordance with the policies of Section F10.4 of this Plan (LOP);
- b) A Secondary Plan, according to the policies of Section G3.1 of this Plan (LOP), including:
 - i. A Sub-watershed Study appropriately scoped to the *Phase 2B Employment Area*, to the satisfaction of Council; and,
 - ii. The establishment of local phasing of development to the 2031 planning horizon;
- c) Appropriate financial plans and agreements, including any necessary front ending agreements, to the satisfaction of the Region and the Town; and,
- d) Appropriate development charge by-laws, to the satisfaction of Council.

In accordance with the Minutes of Settlement (see Appendix C), the proposed development is to be added to the Premier Gateway Phase 1B Secondary Plan. By redesignating the subject lands "Phase 1B Employment Area", it will no longer be subject to the provisions of the "Phase 2B Employment Area" designation. However, to satisfy the Minutes of Settlement the following has been provided:

- *Through the Minutes of Settlement, it was determined that the development could occur in advance of the completion of the Secondary Plan for the Phase 2B Employment Lands. The contents of this report as well as the accompanying materials are intended to satisfy the requirements for secondary planning on the subject lands.*
- *Although further details are provided in the section below, a Scoped Sub-watershed Study has been advanced for the subject lands.*

- *The proposed development has been identified to result in approximately 525 to 895 employees and an employment density of approximately 67 to 115 jobs per hectare. It is intended that the proposed number of employees and employment density assist the Town's ability to achieve its employment targets to 2021.*
- *Although not requested through the Minutes of Settlement or Pre-Consultation Meeting, details concerning the proposed development ability to achieve certain financial objectives of the Town have been provided. This includes that the demand for the proposed development has been confirmed and that the resulting economic benefits from the proposed development on the local and regional context is clear.*

Phase 2B Secondary Plan

The Town of Halton Hills is currently advancing the Premier Gateway Phase 2B Employment Area Secondary Plan to establish the detailed local planning framework including land use designations and policies. The second phase of the Premier Gateway Employment Area is necessary to determine the location of the employment required to the planning horizon of 2031. The work on this plan is underway with numerous technical materials currently being prepared. Included within these studies is the completion of a Scope Sub-Watershed Study required to characterize the natural features and system and provide a management plan to mitigate the impacts.

In April 2020, the project team provided an update to Council with the latest status and next steps. On June 8, 2022 a virtual open house is planned to occur.

As per the above, the development is proposed to occur in advance of the completion of the Phase 2B Secondary Plan. It is further proposed within the draft Official Plan Amendment, applications for Zoning By-law Amendment and Site Plan Control be allowed to advance prior to the Secondary Plan being in full force and effect.

General Development Policies

Urban Design Policies

The LOP sets out that development within the existing Built-Up Area and in new greenfield areas is to ensure a high quality of built form which is based on good design principles, enhances the unique character of the Town, enhances gateways into the urban areas, ensure it is including in the development of public works and others (Sec. F2.1). All development within the Urban Areas is subject to the urban design provisions on the public realm (streetscape, roads, services and utilities), the private realm (site design, building design and siting, drive-throughs, landscaping, parking, signage, display areas and lighting, services, utilities, outside processing and storage, access and circulation), natural heritage, cultural heritage and others. (Sec. F2.2-F2.8).

Although conceptual, the proposed development is mindful of the importance of urban design. Efforts have been made to establish a plan which achieves a balance between public and private realms and is cognizant of the existing conditions including the residential units adjacent to the subject lands. Further, the current concept, as well as future evolutions, will integrate the enhanced natural heritage system in a manner which ensures the protection of the system will seeking opportunities to incorporate it in an appropriate manner. Through future development applications, efforts will be made to address all urban design policies

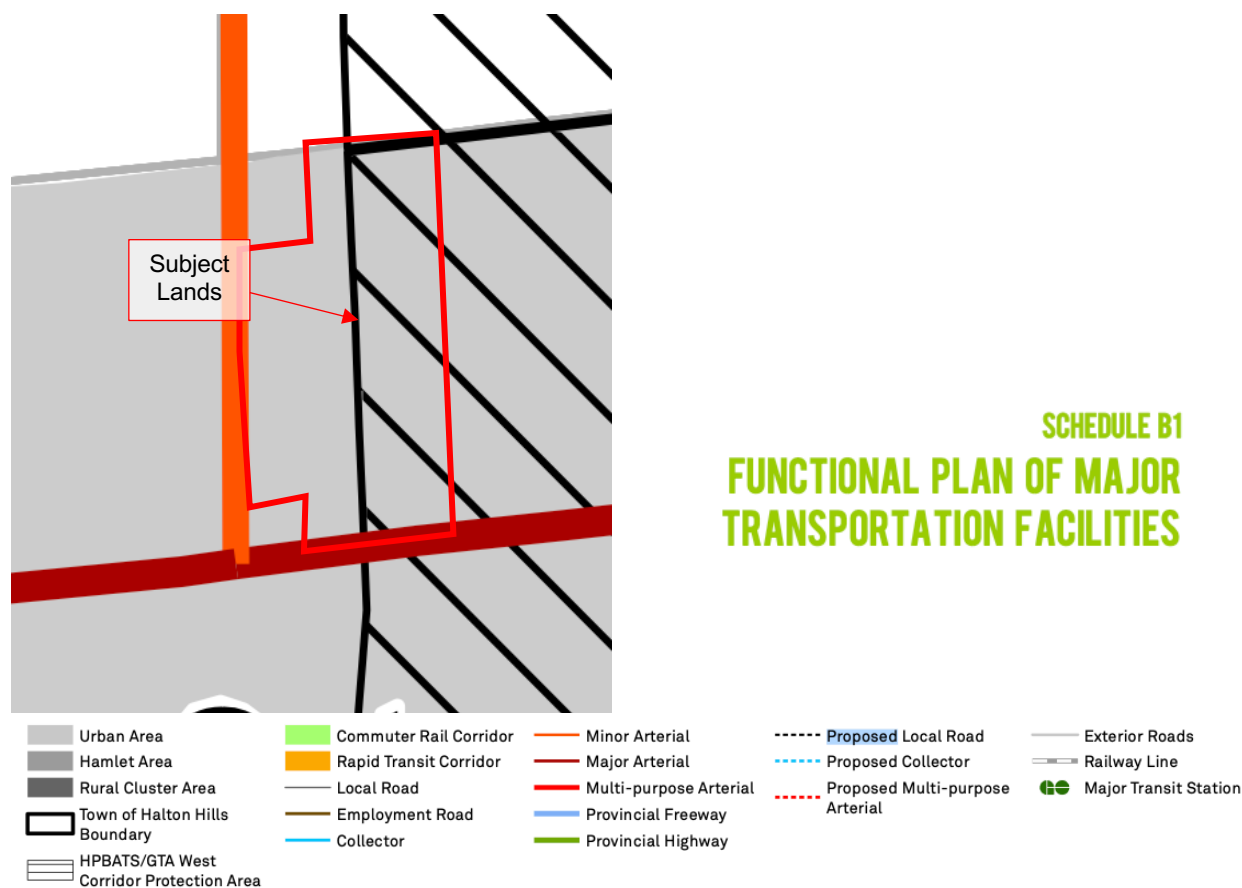
Transportation

The LOP. Provides direction on establishing a transportation network which facilitates the safe and efficient movement of people and goods, accommodates various modes of transportation, promotes transit and active forms of travel, protects transportation corridors and are constructed in a safe manner (Sec. F6). The LOP sets out a road classification addresses right-of-way, design and the function of specific transportation facilities. As set out in Schedule B1 of the LOP, the subject lands are adjacent to Eighth Line and Steeles Avenue which are identified as Minor Arterial and Major Arterial (See Figure 11). The functions of these facilities are as follows:

Table F6 (LOP) – Function of Transportation Facilities		
Facility Type	Function	General Design Guidelines
Major Arterials	<ul style="list-style-type: none"> • Serve mainly inter-regional and regional travel demands. • Accommodate truck traffic. • Accommodate rapid transit services and high occupancy vehicle lanes. • Connect urban areas or nodes in different municipalities. • Carry high volumes of traffic. • Distribute traffic to and from Provincial Highways and Freeways. 	<ul style="list-style-type: none"> • Right-of-way width up to 50m. • Transit supportive land uses to be encouraged along right-of-way within urban areas. • On-street parking not permitted. • Access is restricted with access points consolidated where possible.
Minor Arterials	<ul style="list-style-type: none"> • Serve mainly local travel demands. • Connect urban areas or nodes within the same municipality. • Accommodate local truck traffic. • Carry moderate to high volumes of traffic. • Distribute traffic to and from Major and Multi-Purpose Arterials. 	<ul style="list-style-type: none"> • Right-of-way widths up to 35m. • Up to 4 travel lanes. • On-street parking may be permitted where appropriate. • Access is partially controlled. • Consolidated access points where possible.

As set out in the accompanying Traffic Impact Study the proposed development has been assessed and determined to operate sufficiently within the planned road network. Please see the enclosed report for all recommendations relating to transportation.

Figure 11: Halton Hills Official Plan – Schedule B1 – Functional Plan of Major Transportation Facilities



Also identified on Schedule B1 is the HPBATS/GTA West Corridor (See Figure 11) which is the route planning study area identified by the Province as an areas to be assessed for future transportation facilities. This overlay prohibits the development of these lands until the completion of the appropriate environmental assessment.

Development Phasing Strategies

The LOP provides development phasing criteria which aims at ensuring development occurs in an orderly manner, ensures the provision of community services is coordinated with new communities, gives priority to employment lands and maintains an acceptable balance between residential and non-residential assessment. The applicable general phasing criteria is as follows:

Sec. F10.2 – General Phasing Criteria		
Policy	Criteria	Response
a)	The proposal contributes to the protection and enhancement of natural heritage features and ecological functions and provides	<i>As set out in the SSWS, the policies for the protection of the Regional Natural Heritage System and for the protection of public health and safety within hazard lands have been</i>

	opportunities for public ownership of these lands.	<i>addressed. As required by ROP Policy 118(3), the Scoped SWS has demonstrated that there will be no negative impact to the RNHS as a result of the proposed development on the Subject Lands.</i>
b)	The proposal represents the logical completion or extension of the existing urbanized area, roads and other infrastructure to avoid scattered development patterns.	<i>As identified within the Premier Gateway Employment Area the subject lands are identified to accommodate the Towns employment targets. Through the Minutes of Settlement, the timing for the development of the lands has been advanced to before the 2031 target. This is supported through the enclosed servicing and transportation reports which confirm that the development can occur within the planned infrastructure for the area.</i>
c)	The proposal can be adequately and economically serviced by municipal water and wastewater services and storm drainage facilities.	<i>As set out above, the proposed development can be serviced by municipal infrastructure in an efficient and economically feasible manner.</i>
g)	The proposal can be accommodated within the financial capabilities of the Town to provide the necessary services without decreasing the levels of service to existing development.	<i>As the proposed development does not require extensions or expansions beyond those planned in the immediate short-term for the area, the proposal can be accommodated within the financial capabilities of the Town and will not result in decreasing the levels of service to other areas.</i>
h)	The proposal contributes to achieving density targets of this Plan (LOP) and the Regional Phasing set out in Section F10.4.	<i>The proposed development has been identified to result in approximately 525 to 895 employees and an employment density of approximately 67 to 115 jobs per hectare. This will contribute to achieving the density targets of the LOP and Regional phasing.</i>

Further, the LOP sets out the specific phasing of development for areas such as Premier Gateway Employment Area Phase 2 to be phased over the 2021 to 2031 period.

Table F10 (LOP) – Regional Phasing				
	2012-2016	2017-2021	2022-2026	2027-2031
Employment	787	2,192	9,420	9,606

As per the above, the proposed development will result in a level of employment which can sufficiently address the requirements for the period of time between 2022 – 2026.

Implementation

Amendments to the Plan

The LOP sets out that the plan should only allow amendments when the policies of the plan do not address certain issues or when issues require site-specific proposals to be advanced. Regardless, amendments are to conform to the overall intent of the LOP as set out in the (sec.G2.1):

- a) Community vision, goals and strategic objectives;
- b) Other relevant objectives and policies of the Plan (LOP); and,
- c) 'environment-first' philosophy that is enshrined within this Plan (LOP).

As set out in the above, the subject lands are located within the Premier Gateway Employment Area which is intended to accommodate the Towns future employment beyond 2021. This overarching direction is satisfied as the proposed development has been determined to be a major employment generator which effectively confirms that it can conform to the intent of the LOP. The proposed development also achieves other relevant objectives and policies including the facilitating the advancement of complete communities, development within the confines of planned infrastructure as well as promote economic opportunities which support the advancement of the greater area. As set out in the SSWS, the policies for the protection of the Regional Natural Heritage System and for the protection of public health and safety within hazard lands have been addressed. As required by ROP Policy 118(3), the Scoped SWS has demonstrated that there will be no negative impact to the RNHS as a result of the proposed development on the Subject Lands.

Secondary Plans and More Detailed Plans

As set out in the LOP, a secondary plan's purpose is to establish a detailed development concept for infrastructure and land use for new communities or the redevelopment of an existing community. Further, the Secondary Plan is intended to:

Sec. G3.1 – Secondary Plans - Requirements		
Policy Number	Policy	Response
a)	Establish clear and appropriate boundaries for the new community or redevelopment of an existing community.	<i>The subject lands are bound by Steeles Avenue and the Hornby Presbyterian Cemetery to the south, Eighth Line and residential dwellings to the west and agricultural and natural heritage to the north and east.</i>
b)	Establish population, housing unit and employment capacity targets, including targets for affordable housing.	<i>The proposed development has been identified to result in approximately 525 to 895 employees and an employment density of approximately 67 to 115 jobs per hectare</i>
c)	Establish the most appropriate mix of land uses that recognizes the location of the area and the goals and objectives of this Plan (LOP).	<i>The proposed development is seeking the approval of an Official Plan Amendment which has been specifically designed to facilitate a wide variety of employment based uses. In doing so, it will ensure the area achieves its planned function. Further, through the completion of supporting technical studies, the proposed development will be a major employment generator.</i>
d)	Ensure that the environmental-first objectives of this Plan are met, including policies for the protection and enhancement of natural heritage features and ecological functions.	<i>As set out in the SSWS, the policies for the protection of the Regional Natural Heritage System and for the protection of public health and safety within hazard lands have been addressed. As required by ROP Policy 118(3), the Scoped SWS has demonstrated that there will be no negative impact to the RNHS as a result of the proposed development on the Subject Lands.</i>
e)	Ensure that the urban design objectives and policies of this Plan (LOP) are met.	<i>Through the proposed concept, efforts have been made to achieve the urban design policies of the LOP. It is important to note that the envisioned concept will be subject</i>

		<i>to future detail design and planning exercises.</i>
f)	Ensure that adequate transportation networks are/or will be established and that the transportation network is adequately supported by the proposed development pattern.	<i>The proposed development has been prepared to function within the existing and planned transportation network of the area. This is further assessed and confirmed within the enclosed Traffic Impact Study.</i>
g)	Ensure that adequate water and wastewater servicing is established to serve the anticipated development and that they can be phased in a way that is cost-effective and efficient.	<i>The proposed development has been designed to function within the planned servicing systems. In doing so. See below summary on the Functional Servicing Report for further details.</i>
h)	Ensure that appropriate Secondary Plan policies, including phasing, servicing and financing policies are in place to clearly and effectively guide future development within the Secondary Plan area.	<i>As previously noted, the proposed development has been submitted in advance of the ongoing Secondary Plan process in accordance with the Minutes of Settlement. Through the implementing OPA, the lands will be redesignated as "Phase 1B Employment Area" which is intended to satisfy the employment needs to 2021. The proposed development is supported by technical studies, including a well-advanced SSWS, which ensures that the development requirements set out in the Phase 1B Employment Area designation can be achieved.</i>
i)	Incorporate appropriate policies pertaining to the provision and location of utilities.	<i>Please see enclosed Functional Servicing Report for further information on utilities. Please note, through future planning exercises the design and siting of utilities will be advanced.</i>
j)	Establish land use patterns that promote mixed-use, compact, transit-supportive, walkable communities, including identifying the locations for social, cultural, recreational, educational and religious facilities.	<i>As mentioned, the proposed development has been designed to facilitate the creation of mixed-use, compact and transit supportive communities. This includes establishing the ability for non-automobile forms of transportation to access the subject lands. Further, the development is proposing to include a diverse array of uses which can operate in</i>

		<i>parallel to the use of the surrounding areas and are all employment generating.</i>
k)	Establish the location, types and density of residential and employment lands that contributes to the creation of healthy communities through: the appropriate mix and density of housing; strengthening live-work relationships through the balance of residential and employment land uses; the provision of local parks and open space and promoting active transportation and the use of public transit.	<i>The proposed development has been identified to result in approximately 525 to 895 employees and an employment density of approximately 67 to 115 jobs per hectare. The proposed development therefore will contribute to the creation of healthy communities.</i>
l)	Address land use compatibility in accordance with Regional and Ministry of Environment guidelines; and	<i>Please see section above (ROP section) for further information on demonstrating compatibility to Regional and Ministry guidelines. Additionally, it is proposed that further details on compatibility will be provided through future planning exercises.</i>
m)	Established overall development density for the area, and for areas within the Designated Greenfield Area, how this density will contribute to achieving the minimum development specified in Section D6.2 and the Regional Phasing in Section F10.4 of this Plan (LOP).	<i>The proposed development has been identified to result in approximately 525 to 895 employees and an employment density of approximately 67 to 115 jobs per hectare. The proposed development therefore will achieve the targets anticipated within the local and regional phasing strategies.</i>

Secondary Plans are to be adopted by amendment, conform with and implement the goals, strategic objectives and other relevant objectives of the LOP. New secondary plans shall be based on the following studies:

Sec. G3.1 – Secondary Plans – Required Studies		
Policy Number	Policy	Response
a)	A sub-watershed study in accordance with Section C7 of this Plan (LOP).	<i>As previously set out the proposed development has been prepared to a well-advanced Scoped Sub-Watershed Study. Please see the provided summary in the section below however, it is noted that through the SSWS, the policies for the protection of the Regional Natural Heritage System and for</i>

		<i>the protection of public health and safety within hazard lands have been addressed. As required by ROP Policy 118(3), the Scoped SWS has demonstrated that there will be no negative impact to the RNHS as a result of the proposed development on the Subject Lands.</i>
b)	A functional servicing plan that demonstrates the means by which the new community will be appropriately serviced.	<i>Please see enclosed Functional Servicing Report for further details on how the proposed development will be appropriately serviced.</i>
c)	Urban design guidelines in accordance with Section F2 of the Plan (LOP).	<i>Although efforts have been made to incorporate the urban design policies of the LOP within the proposed concept, demonstration of compliance will be provided through future design exercises which are anticipated to be completed as part of future planning approvals.</i>
d)	A detailed Transportation Study that determines the impact of the development on the surrounding road network and recommends necessary improvements to the transportation network consistent with the goals, objectives and policies of this Plan.	<i>Please see the enclosed Traffic Impact Study which effectively confirmed the impact of the proposed development to be negligible on the planned transportation network. The report also incorporates recommendation on improvements.</i>
e)	A Fiscal Impact Analysis that demonstrates development shall not negatively impact the Town's financial position.	<i>Although not requested through the pre-consultation or Minutes of Settlement, the proposed development (through the enclosed technical materials) has effectively confirmed that it will not negatively impact the Town's financial position on the basis that it will not require unnecessary expansions of infrastructure and will occur on land which are otherwise under-utilized.</i>
f)	A Market Impact Assessment that determines the need for additional commercial floorspace, having regard for the planned function of existing commercial designations established by this Plan (LOP).	<i>Although not requested through the pre-consultation or Minutes of Settlement, the proposed development (through the enclosed technical materials) is in keeping with the planned function of the existing designations within the LOP.</i>
g)	An Air Quality Impact Assessment based on Regional guidelines.	<i>This item was not requested through the pre-consultation</i>

		<i>meeting of through the Minutes of Settlement, however it will be addressed through the Phase 2B Secondary Plan.</i>
h)	A Community Infrastructure Plan, based on Regional guidelines, describing planning for the provision of public services for health, education, recreation, social and cultural activities, safety, security and the provision of affordable housing.	<i>Due to the nature of the proposed development, no public services are anticipated to be provided at this time.</i>
i)	An Agricultural Impact Assessment of the potential impact of urban development on existing agricultural operations, based on Regional guidelines including the requirement for compliance with the Minimum Distance Separation formulae where an agricultural operation is outside the Urban Area.	<i>As the lands are located within the Urban Area and Regional Natural Heritage System, no Agricultural Impact Assessment is required. Through previous planning approvals, compliance with Minimum Distance Separation Formulae has been achieved.</i>

6.4.1 Halton Hills Official Plan Amendment No.10

Through the completion of ROPA 38, the Region identified the preferred growth option while implementing provincial policy. The Town of Halton Hills implemented OPA 10 to bring the Official Plan into conformity with ROPA 38. As set out by the Town, the following are the major areas which have been updated through OPA 10:

- the replacement of the current 2021 planning horizon with a new 2031 planning horizon;
- the identification of a 2031 total population of 94,000 people and a total employment of 43,000 jobs;
- the expansion of the Georgetown Urban Area to include:
 - Southwest Georgetown, bounded by Trafalgar Road, Fifteen Side Road, Eighth Line and 10 Side Road;
 - Southeast Georgetown, bounded by the Tenth Line, 10 Side Road and the Hamlet of Norval; and,
 - the existing Hamlet of Stewarttown along with adjacent lands bounded by the CN Railway line and the Protected Countryside Area of the Greenbelt Plan;
- the expansion of the Premier Gateway Employment Area by 340 gross hectares north of Steeles Avenue;
- the integration of the existing Rural (Mansewood) Industrial Area into the Urban Area as a General Employment Area;
- the inclusion of a minimum Designated Greenfield Area density target of 39 residents and jobs per gross hectare, which is a blended figure that includes both Georgetown and the Premier Gateway Employment Area;
- updates to the housing unit mix;

- the inclusion of general policy direction for the Future Residential/Mixed Use Area and the Future Employment Area including the establishment of the local phasing of development as part of future Secondary Plan exercises to the 2031 planning horizon;
- the inclusion of additional policy direction regarding employment land conversions;
- the identification of Future Strategic Employment Areas (FSEA) and accompanying policies;
- the inclusion of additional direction on phasing policies as per ROPA 38; and,
- the inclusion of additional policy direction regarding the preparation of Secondary Plans as per ROPA 38.

OPA No.10 was adopted by Town Council in March 2010. Of relevance, the OPA included the incorporation of updated phasing policies which established 5-year targets for designated greenfield area (i.e. Georgetown South and Georgetown expansion areas), intensification area (i.e. Built Boundary within Acton and Georgetown) residential units and employment (primarily within Premier Gateway), to 2031. Additionally, OPA 10 included new sections entitled “General Phasing Policies” and contained the following:

F10.4 (OPA 10, LOP) – General Phasing Policies		
F10.4.1	Joint Infrastructure Staging Plan <ul style="list-style-type: none"> • It is the intent of this Plan that the Town participate with the Region, the School Boards, and Provincial human service agencies, in the preparation of a Joint Infrastructure Staging Plan, based on the population and employment forecast contained in Section A1A of this Plan, to ensure infrastructure and human services to support growth is planned and financing is in place before it is required. • Development is phased to the intermediate year of 2021, in accordance with the Regional Official Plan, and does not include the <i>Future Residential/Mixed Use Area</i> shown on Schedule A3, and the <i>Future Employment Area</i> shown on Schedule A8, of this Plan. 	<i>As noted in the sections of this report above, the requirement of a Joint Infrastructure Staging Plan has not been requested through the proposed development nor is it necessary for its completion. It is important to note however, that one will be prepared through the completion of the Phase 2B Employment Area Secondary Plan.</i>
F10.4.2	F10.4.2 Urban Area without Regional Phasing <ul style="list-style-type: none"> • The <i>Future Residential/Mixed Use Area</i> shown on Schedule A3, and the <i>Future</i> 	<i>Through the Minutes of Settlement, the subject lands have been confirmed to be able to be added to the Phase 1B Employment Area, which represents the lands</i>

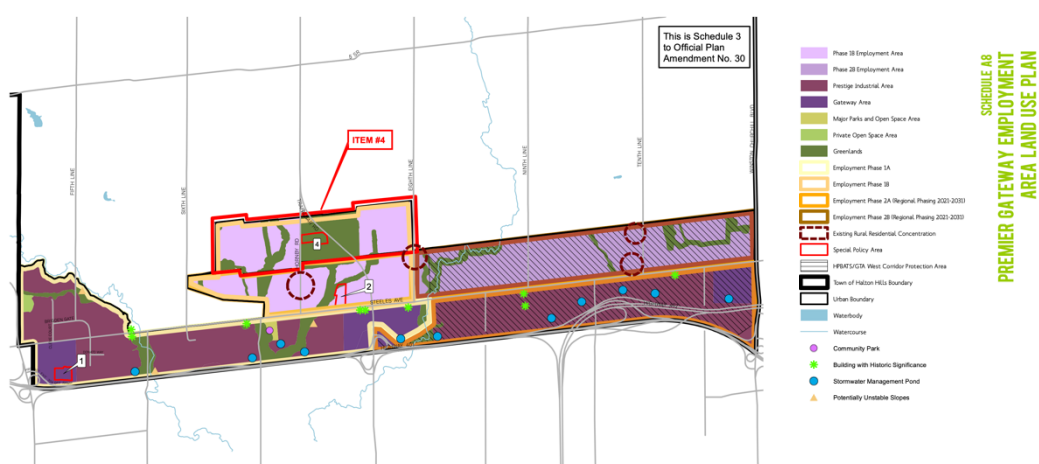
	<p><i>Employment Area shown on Schedule A8, of this Plan, are without Regional phasing, and will be the subject of a subsequent amendment to the Regional Official Plan, in consultation with the Town, to establish phasing to the 2031 planning horizon.</i></p>	<p><i>intended to accommodate employment needs to 2021, subject to the completion and approval of several technical studies. As outlined within the contents of this report, it is confirmed that the proposed development achieves the Region and Town's phasing objectives.</i></p>
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6.4.2 Halton Hills Official Plan Amendment No.30

Through the adoption of ROPA 48 (as addressed in the ROP section), additional lands were added for employment uses to the Phase 1B Premier Gateway Employment Area. The intention of the additional lands was to replace the shortfall of employment lands within the Town to the 2021 planning horizon, as a result of the lands being lost due to the Greater Toronto Area West/Halton-Peel Boundary Transportation Study (GTA West/HPBATS). In June 2018, OPA No. 30 was adopted which resulted in the designation of up to 75 hectares of additional land for employment uses (See Figure 12). Halton Region issued its decision on February 23, 2021.

As set out above, the proposed development is seeking to redesignate the subject lands to "Phase 1B Employment Area". Through the proposed amendments, the intent and objective of OPA No.30 is not impacted but rather supported as it will further ensure that Town's ability to achieve the forecasted employment within the 2021 planning horizon.

Figure 12: Halton Hills Official Plan – OPA No.30 - Schedule A8 – Premier Gateway Employment Area Land Use Plan



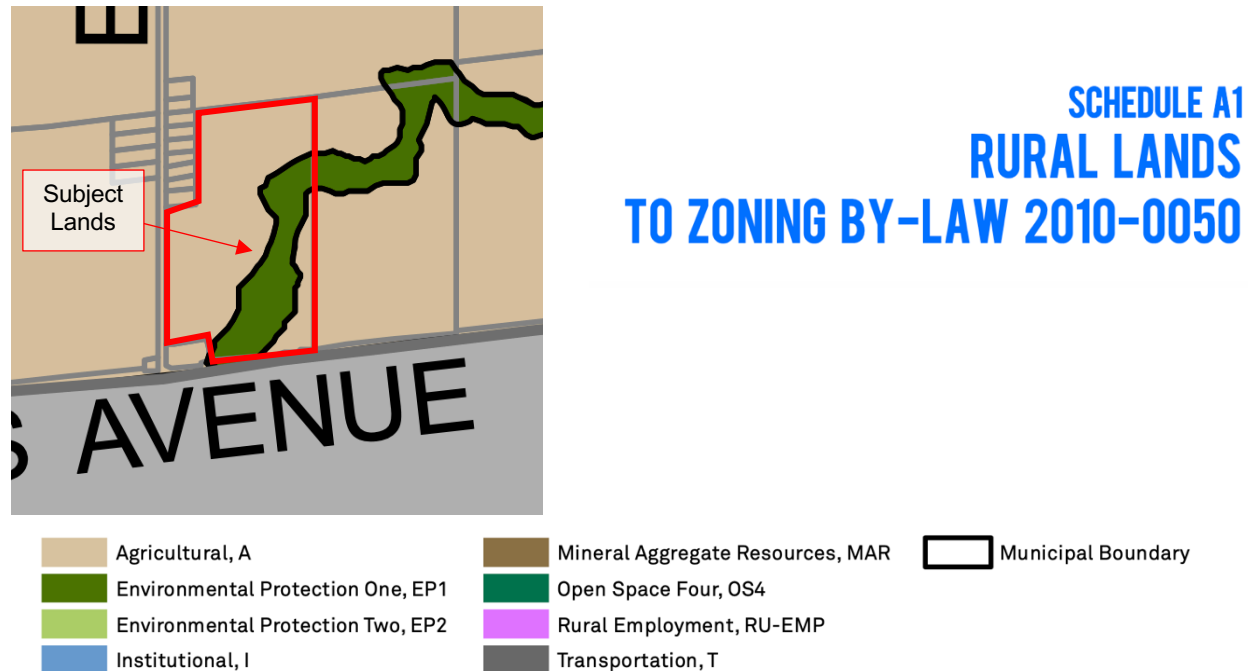
6.5 Halton Hills Zoning By-Law 2010-0050

Zoning By-law 2010-0050 applies to the entire limits of the Town of Halton Hills. In accordance with Section 34 of the Planning Act, it regulates the use and siting of buildings and structures. In accordance with Zoning By-law 2010-0050, the subject lands are zoned *Agricultural (A)* (See Figure 13). Development standards for the 'A' zone are as follows:

Permitted Uses	
<ul style="list-style-type: none"> • Accessory Dwelling Units • Agricultural Uses • Animal Clinics • Art Galleries • Bed and Breakfast Establishments • Business Offices • Cannabis Cultivation • Cannabis Analytical Testing Facilities, • Cannabis Cultivation, Indoor • Conservation Uses • Cottage Industries • Cottage Industries in an Accessory Building 	<ul style="list-style-type: none"> • Custom Workshop • Equestrian Centres • Farm Employee Accommodation Accessory • Industrial Uses (subject to restrictions) • Motor Vehicle Repair Garages (subject to restrictions) • Parks, Private • Places of Worship • Private Home Daycares • Retail Stores (subject to restrictions) • Service Shops (subject to restrictions. • Single detached dwellings
Development Regulations	
Minimum Lot Frontage	180 m
Minimum Lot Area	4.0 ha
Minimum Required Front Yard	15.0 m (1)
Minimum Required Rear Yard	15.0 m (1)
Minimum Required Interior Side Yard	15.0 m (1)
Minimum Required Exterior Side Yard	15.0 m (1)
Maximum Height	11.0m
(1) – Single detached dwellings are subject to the provisions of the Country Residential (CR) zone.	

Only an Official Plan Amendment is proposed to implement the development concept at this time. It is understood that a future Zoning By-law Amendment will be required to resolve and update the applicable zoning. However, as the proposed conceptual is only preliminary at this time, only amendments to the Official Plan are being sought.

Figure 13: Halton Hills Zoning By-law 2010-0050



404 / 407 Corridor Zoning By-law 2000-138

Through Zoning By-law 2000-138, the Town adopted updated zoning standards for the lands located within the 401-407 Corridor. This corridor is bound by 401 to the south, Highway 25 (Ontario Street) to the west, the Greenbelt and Steeles Avenue to the north and Winston Churchill to the east (See Figure 14). Please note, the proposed development is not subject to this by-law as the lands are not located within the boundaries, however, it is provided for context purposes. It is anticipated that through a future zoning by-law amendment exercises, a development which is in keeping with the intent and objectives of Zoning By-law No.2000-138 will be advanced.

As identified on Schedule 1 of the by-law (Figure 14), the lands contain the following zones:

- 401 Corridor Prestige Industrial (M7)
- 401 Corridor Gateway (G)
- 401 Corridor Gateway Special (G-1) Zone
- 401 Corridor Gateway Special (G-2) Zone
- 401 Corridor Gateway Temporary Use (G-3) Zone
- 401 Corridor Development (MD)
- Conservation Special (O3-1)

The Town is currently undergoing the Premier Gateway Employment Area Zoning By-law and Urban Design Review which is intended to review and update Zoning By-law 2000-138 and the necessary Urban Design Guidelines to ensure the standards will continue to achieve the desired development and is responsible to the needs of businesses. The Zoning By-law Study Area

includes the entire of the Premier Gateway Employment Area, including Phases 1B and 2B. Some of the modifications including updates to lot size, built form, parking, servicing and loading coverage increase, minimum setbacks and others.

Figure 14: Halton Hills Zoning By-law 2000-138

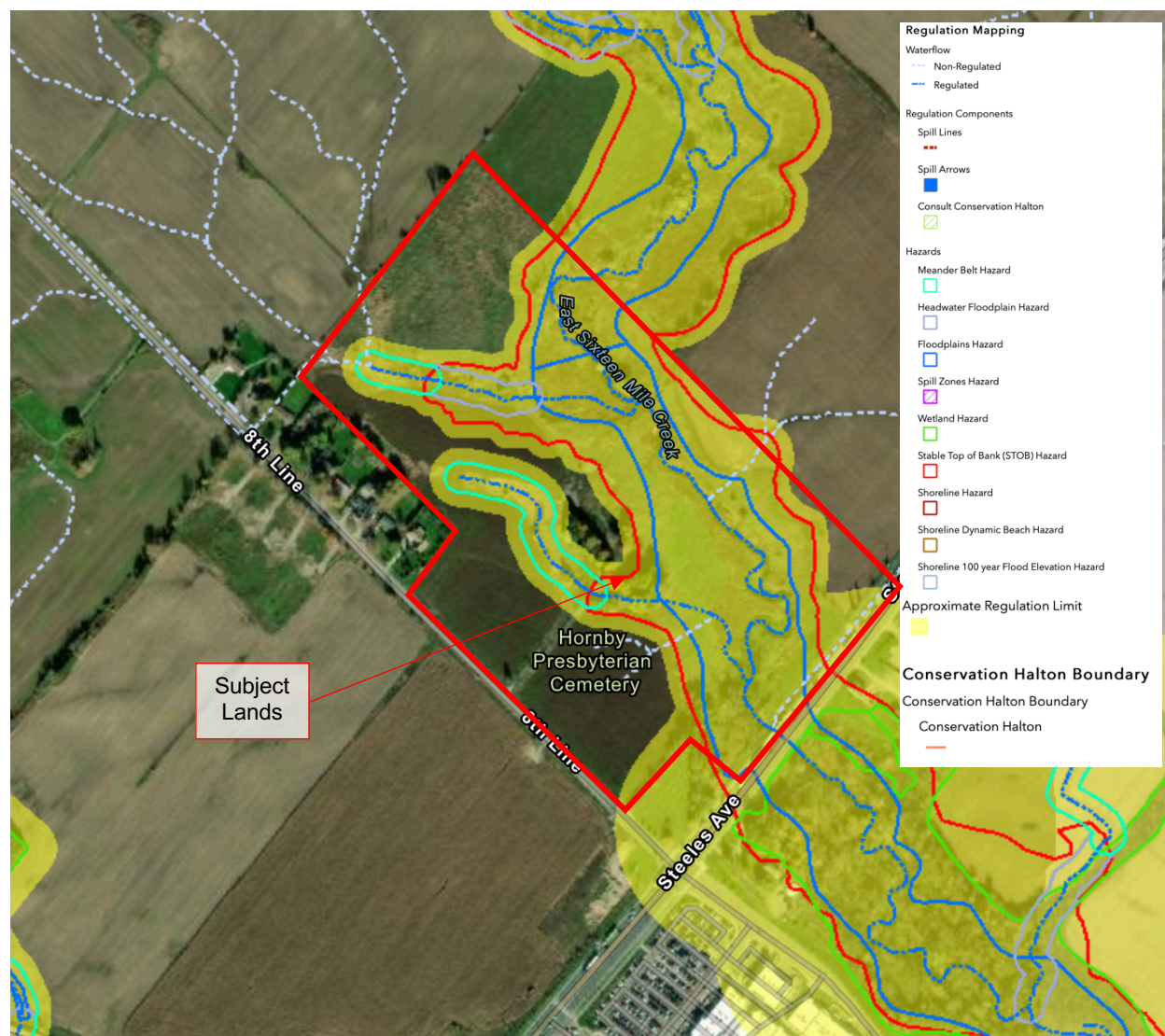


SCHEDULE 1
401/407 CORRIDOR
ZONING BY-LAW 00-138
CONSOLIDATED WITH 2010-0050
UPDATES (DECEMBER 31, 2019)

6.6 Conservation Halton

In accordance with the *Development, Interference with Wetlands, Alterations to Shorelines and Watercourses* regulation (Ontario Reg. 162/06), permission is required from Conservation Halton (CH) for any development or site alteration within the areas covered by CH's regulation limits (See Figure 15). This includes areas prone to flooding, erosion hazards, watercourses, wetlands and lands adjacent. As the subject lands contain portions of the East Branch of Sixteen Mile Creek and its associated valley feature, it is within CH's Approximate Regulation Limit (ARL).

Figure 15: Conservation Halton Approximate Regulation Limit



In accordance with the SSWS, the following sets out how the proposed development complies with the relevant Conservation Halton provisions:

- *The wetlands and top of bank were staked in the field with CH staff and those boundaries have been incorporated into the site plan.*
- *The refined RNHS limits incorporate the valleylands plus 15m development setbacks. No development is proposed within the valley or the setbacks with the exception of one watercourse crossing and two stormwater outfalls which, by their nature, must be within the regulated area. At detailed design, the crossing and stormwater outfalls will require a Permit pursuant to Ontario Regulation 162/06.*
- *Within the Primary Study Area, the meander belt is entirely contained within the ESMC1 valley. In one location, where the watercourse is within 8m of the toe of slope, the stable top of bank assessment takes precedence over the meander belt assessment.*
- *As outlined in the SSWS, although a pre-Scoped SWS top of bank was staked by CH along the majority of TESMC1, a detailed analysis of the topographic survey reveals that, for the most part, the valley slope is less than 2m in height on both sides of the watercourse. Based on CH policy, a valley feature that is less than 2m in height is considered an unconfined system and a top of bank should not be staked. Within an unconfined system the meander belt would be the appropriate erosion hazard to apply. Given that the staked top of bank is the only factor influencing CH's recommendation that TESMC1 should be considered a high constraint watercourse, a recommendation has been included in the SSWS that the constraint ranking of that section of TESMC1, where the valley slopes are less than 2m in height and not well-defined along the west side of TESMC1, should be reviewed at the next stage in the planning process. A change in classification from high to medium constraint will not impact the limit of development as determined through this Scoped SWS and, as such, does not affect the Official Plan or Zoning By-Law Amendments.*
- *Flood plain mapping was updated based on the calibrated model. In all cases, with the exception of one location on the eastern side of the ESMC1 valley, the flood plain is contained below the staked top of bank. The refined RNHS incorporates a 15m setback from the Regional Storm flood plain, as per CH policy. No development is proposed on the eastern side of the ESMC1 valley as part of the current planning application.*
- *Wetlands in the Primary Study Area have been staked by CH. With the exception of a portion of the wetland along H1S1 and H1S2, all wetlands within the Primary Study Area will be maintained and a 30m development setback applied. The portion of wetland along H1S1/H1S2 will be replicated at a slightly greater than 1:1 ratio within the Primary Study Area, adjacent to existing wetlands. The newly created wetlands will also be provided with a 30m development setback, in-keeping with CH policy. The removal of wetland and replication adjacent to existing wetlands will require a Permit from CH.*
- *ESMC1 and TESMC1 are regulated watercourses pursuant to Ontario Regulation 162/06. The road and servicing crossings of TESMC1 will require Permits from CH pursuant Ontario Regulation 162/06. The two outfalls to ESMC1 will require also require Permits from CH.*

6.0 SCOPED SUB-WATERSHED STUDY

A Scoped Sub-watershed Study (SSWS) was required for the lands north of Steeles Avenue, east of Eighth Line and west of Ninth Line to study specific portions of Sub-watershed 5 within the Sixteen Mile Creek Watershed that were not studied as part of the Phase 1B Premier Gateway Scoped SWS. This work is necessary to support the completion of the proposed Official Plan Amendments and associated servicing studies related to the development proposal for the subject lands. The SSWS has been prepared in collaboration with a Sub-watershed Technical Advisory Committee (SWTAC) consisting of the Town of Halton Hills, Region of Halton and Conservation Halton. The SSWS has been guided by the Terms of Reference which was approved in January 2020 (See Appendix E). A second submission was recently provided to the reviewing agencies on February 28, 2022.

The SSWS is intended to confirm the extent of the Regional Natural Heritage System (RNHS), with refinements where necessary and justified, and identify management and implementation measures required to ensure the protection of natural heritage features and hydrological functions resulting in appropriate land use policies within the Official Plan Amendments.

The Scoped SWS Study Area is located within the Sixteen Mile Creek Watershed, which is within the jurisdictional area of Conservation Halton (CH). The lands are within the Eastern Branch of Sixteen Mile Creek within Sub-watershed 5. The East Branch of Sixteen Mile Creek flows through the Study Area as well as two small tributaries, on the Subject Property, referred to as Tributaries A and B in previous correspondence. The Scoped SWS Study Area has been divided into two areas for the purpose of this Study.

1. **Primary Study Area** – consists of the land at 8079 8th Line (Primary Study Area), seven residential properties fronting 8th Line (8137, 8149, 8159, 8169, 8177, 8191 and 8195 8th Line) and the Hornby Presbyterian Cemetery at 8021 8th Line. Detailed fieldwork has been undertaken within the Primary Study Area to characterize the natural heritage and natural hazard features and functions.
2. **Extended Study Area** - consists of lands to the east of the Primary Study Area to Ninth Line including 14829, 14847 and 14849 Steeles Avenue and 8028, 8040, 8278 and 8310 Ninth Line. Desktop analysis has been undertaken for the lands within the Extended Study Area in order to characterize the natural heritage and natural hazard features and functions. Existing reports, studies and mapping have been used to establish a preliminary characterization for these lands however, detailed fieldwork is anticipated as part of the Phase 2B Premier Gateway Sub-watershed Study.

The Scoped SWS was prepared collaboratively by the following team of consultants:

- Jennifer Lawrence and Associates Inc. – Environmental Planning, Report Coordination and Consolidation
- MGM Consulting – Water Resources Engineering
- Savanta, a GEI Company – Natural Heritage
- GEO Morphix – Fluvial Geomorphology
- DS Consultants – Geotechnical and Hydrogeology
- Minnow Environmental – Benthics

The SSWS included components typically completed through a Sub-watershed Impact Study, which not only replaces the need for such a study but ensured a detailed examination of

stormwater management and natural heritage mitigation, management measures and monitoring requirements.

The SSWS assessed the proposed development which includes a proposed driveway crossing of TESMC1 and proposed wetland replication areas for the wetlands proposed to be removed along H1S1 and the downstream portion of H1S2. The driveway crossing has been designed to span the wetland vegetation along TESMC1 which at the location of the crossing, is approximately 16m in width.

The assessment resulted in the following determinations and recommendations. As the following is intended to be a high-level summary of the SSWS, please see the complete second submission for specific details on the completed works.

- **Surface Water**
 - Hydrological modelling was conducted on the conceptual land use plan to determine potential urbanization impacts. The modelling determined minor differences between the existing and future conditions.
 - In addition to flow analysis, an assessment has been completed to determine the increased erosion potential that would result from the proposed development of the study area. It determined that if stormwater management strategies were not implemented, the receiving watercourse would experience exacerbated rates of erosion which would likely negatively impact the creek.
- **Stormwater Management Systems Sizing**
 - The post-development model for the future land use conditions detailed in the report was further modified to introduce stormwater management controls. The controls included orifice control measures installed at the end-of-pip locations. The controls were determined to successfully limit the post-development peak flows to pre-development levels at all key locations within the study area and downstream.
- **Post Development Water Balance**
 - A water balance study was completed to predict changes to hydrological conditions over the study area as a result of the proposed development and to assess potential risks to the tributary and wetlands along the north and east boundary of the site. Based on the results of the pre-development and post-development water balance completed, the proposed development will change the hydrologic system of the PSA and ESA. To minimize the effects, LID measures which promoted onsite infiltration were incorporated into the proposed development plan.
 - To prevent degradation of groundwater quality within the immediate vicinity of the proposed development, it is suggested that only clean sources of stormwater be considered for infiltration LIDs.
- **Recommended Stormwater Management**
 - The recommended SWM approach for the Primary Study Area is to implement quantity and quality controls on the two parcels individually. Due to the limited space within these parcels, the use of surface storage as the exclusive method for SWM is not ideal and not an efficient use of land. As a result, this report has

- considered alternative SWM options for these parcels, that will meet the quality, quantity and erosion control requirements of the receiving watercourses.
- The two parcels will ultimately discharge to ESMC1 in the post-development conditions. Unless demonstrated otherwise, Regional Storm controls are required to ensure no negative impacts to the flood plain along the East Sixteen Mile Creek, downstream of the Primary Study Area. In the absence of a surface storage SWM facility, the best approach to provide Regional Storm controls is to apply a combination of stormwater quantity controls throughout the development area.
 - Since the parcels are discharging into ESMC1, the natural elevation drop within the Subject Lands presents a unique opportunity to stack underground storage tanks higher, providing the potential for large areas of underground storage. However, utilizing underground storage tanks to implement Regional Storm controls poses unique challenges ensuring storm flows can be successfully routed into the tanks. With surface storage, flows can be directed into the facility through an overland flow route. Therefore, for subsurface storage tanks to successfully control the Regional Storm event, the following flow routing options are recommended:
 - Directing overland flows to a designated landscaped location, just upstream of the ultimate site outlet. At this location, several large intakes (preferably ditch inlets), sized to convey the anticipated Regional Storm event flows can then direct the flows below the surface into the storage tanks. The sewers connecting the ditch inlets to the tank must be sized to convey the Regional Storm flows into the tanks; or
 - Ensuring all inlets into the storm system and storm sewers in the network have capacity to route the anticipated Regional Storm event flows.
 - Conceptual Grading and Servicing Plans for the Primary Study Area have been provided, demonstrating the feasibility of the SWM approach. In these concept plans, major stormflows are routed overland to large capacity ditch inlet intakes that route storm flows into underground storage tanks. Additionally, without a surface pond, the Primary Study Area quality control will be provided at the lot-level. CH recently started utilizing Environmental Technology Verification (ETV) Canada ratings on all quality control devices. These ratings no longer approve standard Oil and Grit Separator (OGS) units to provide the minimum 80% TSS removal. Therefore, a treatment train approach must be implemented to achieve the required level of treatment.
 - Road Crossings
 - No municipal road crossings of ESMC1 or TESMC1 are proposed within the Primary Study Area. One private driveway crossing of TESMC1 is proposed at approximately the mid-point of the reach to facilitate access to an otherwise landlocked portion of the Primary Study Area. This crossing will convey flows to ESMC1 via TESMC1 and is sized to provide Regional Storm conveyance. Moreover, this crossing will be designed to support the movement of fish, amphibians, reptiles and small mammals per CH's Road Ecology Guideline (2018). For the purpose of this Scoped SWS a 20m span with a height of 1.3m has been assumed. Given these dimensions, there will be sufficient area

available on both sides of the watercourse for terrestrial wildlife movement. From a fluvial geomorphological perspective, Reach TESMC1 was characterized as a relatively straight swale feature with poor channel definition. No meanders, riffles or pools were observed along the reach. Where the feature was better defined, bankfull widths ranged from 2 to 3 m.

- It is the Study Team's opinion that a crossing that spans the width of the flooding and erosion hazards at this location is not warranted. Given the limited channel definition and stability of the swale feature, erosion rates could not be determined however, along the portion of TEMSC1 that is unconfined, an 18m meander belt has been recommended. Along the portion of TESMC1 that is confined, a 1m toe erosion allowance has been recommended. GEO Morphix respectfully submits that a crossing that is three times the bankfull width of the channel is not required to address natural hazards from a geomorphic perspective and that a crossing that consists of a 2100 mm by 1300 mm culvert would be adequate. Preliminary hydraulic modelling also demonstrated that a culvert of this size would successfully route all drainage flows without impacting the channel hydraulics and would not cause backwater effects. A crossing of this width also addresses the minimum bankfull width measured in the field (2 m) and due to the lack of erosion and channel form, would adequately address the erosion hazard.
- The cost difference between a 6m culvert crossing, a size that the Study Team deems to be sufficient to address all erosion and flooding parameters, and a 20m span is significant. For example, a 6m culvert crossing, 1.3m in height and 12m long is approximately \$400,000 whereas a 20m span, 1.3m in height and 12m long is approximately \$1,000,000. Given that this crossing is in support of a driveway, and not a municipal road, it is difficult to justify this additional expense merely to avoid the removal of less than 200m² riparian wetland vegetation.
- Natural Heritage Management
 - As outlined in the SSWS, the following preliminary constraints were confirmed in the Primary Study Area during the characterization phase of this Scoped SWS:
 - Significant Valleylands
 - Significant Wildlife Habitat
 - Regionally Significant Wetlands (along ESMC1)
 - Other wetlands (along TESMC1 and headwater HDFs)
 - Regional Storm flood plain
 - Meander Belt
 - Physical and Stable Top of Bank
 - Watercourses
 - Fish Habitat
 - Habitat for endangered and threatened species (Bobolink, Eastern Meadowlark)
 - Headwater Drainage Features
 - A refined RNHS has been proposed as part of the development of the Conceptual Overall Land Use Plan. The RNHS within the Primary Study Area consists of the confirmed constraints listed above and an evaluation of the most appropriate buffer dimensions that are necessary to ensure the long-term maintenance and enhancement of the RNHS Key Features and components

within the Study Area. Each RNHS Key Feature and component, and the recommended management strategy are discussed in detail below.

- The buffers provided to the above features, within the Conceptual Overall Land Use Plan, are consistent with the buffers provided to similar features within the Primary Study Area. Again, the buffers may require refinement once additional fieldwork is completed within the Extended Study Area. Buffers are mitigation measures that are used to protect natural heritage features. These vegetated buffers will be planted with native plant materials to ensure resiliency of the system. Vegetated buffer zones will ultimately be incorporated into the features as plantings mature and establish. The following vegetated buffers are proposed within the Study Area:
 - 15 m from long term stable top of slope, where such a determination has been made (i.e., within the Primary Study Area) and 15m from 'CH's approximate long term stable top of bank (i.e., within the Extended Study Area, precise area to be confirmed through the Phase 2B SWS);
 - 15m from meander belt;
 - 15m from Regional Storm flood plain;
 - 15m from wetland limits for features less than 2 ha in size;
 - 30m from wetland limits for features greater than or equal to 2 ha in size;
 - 30m from dripline (based on air photo interpretation within the Extended Study Area); and,
 - 30m from the watercourse centreline.
- Species at Risk
 - Five SAR were identified within the Primary Study Area during ecological investigations:
 - Barn Swallow;
 - Bobolink;
 - Eastern Meadowlark;
 - Eastern Small-footed Myotis; and,
 - Little Brown Myotis.
 - Breeding habitat was identified for Bobolink and Eastern Meadowlark within the Primary Study Area within a fallow field. Removal of this habitat will occur in accordance with a registration under section 23.2 of O. Reg. 242/08, and compensation habitat will be provided. Barn Swallow were observed foraging over the Primary Study Area; however, no suitable breeding habitat is present. Though recorded during bat acoustic monitoring surveys, no suitable maternity roosting habitat is present for Eastern Small-footed Myotis. Due to the low quantities of calls recorded for Little Brown Myotis during acoustic monitoring surveys, it is likely that these were associated with foraging instead of roosting within the cultural woodlands on the Primary Study Area. However, where trees are proposed for removal, they will be removed outside of the bat maternity roosting window (April 15 to October 15) to ensure protection of SAR bats. Given the above, this development will be in compliance with the ESA (2019 Consolidation).
- Wetlands
 - The following four wetland communities are known within the Primary Study Area:
 - Reed Canary Grass Mineral Meadow Marsh (MAM2-2);

- Forb Mineral Meadow Marsh (MAM2-10);
 - Common Reed Mineral Meadow Marsh (MAM2-11); and
 - Cattail Mineral Shallow Marsh (MAS2-1).
- All wetland communities are associated with either regulated watercourses (ESMC1, TESMC1) or HDFs (H1 and H2). The riparian wetlands along ESMC1 have been identified as regionally significant wetlands, will be retained in place and have been given a 30m buffer. No removals of regionally significant wetlands are proposed. Moreover, non-regionally significant riparian wetlands along TESMC1 and HDF H2 will also be retained in place and have also been given a 30m buffer. No removals of non-regionally significant wetlands are proposed. The existing wetland communities do not contain turtle basking and/or overwintering habitat. No amphibians were recorded or incidentally observed within the wetland features despite survey effort in 2019.
- A total of 0.36 ha of wetland habitat is proposed for removal along a portion of HDF H1S1 and the southern portion of H1S2. Of the 0.36 ha of wetland habitat proposed for removal, 319 m² (0.03 ha) is an invasive stand of Common Reed. The direct removal will result in permanent removal of limited wildlife habitat (foraging), minor reduction of flood control and storage functions and marginal decrease in water quality due to loss of natural attenuation. Wetland compensation at a slightly greater than 1:1 ratio is proposed within the northwest corner of the Primary Study Area within the restoration and enhancement area. A total of 0.4 ha of wetland habitat will be provided adjacent to existing wetlands along TESMC1 and HDF H1S2 to mitigate for the proposed removal of 0.36 ha of wetland habitat.
- No negative impacts are predicted to the wetlands or their ecological functions due to the enhanced buffer zones surrounding the retained and proposed wetland communities and the provision of clean flows to sustain the wetland hydrology in accordance with section 118(2)(b) of the ROP. While it is recognized that the ROP does not support offsetting as a mitigative strategy for significant natural heritage features, the features that are proposed for removal and replication do not meet the test for significance.
- Significant Valleylands
 - One significant valleyland is identified within the Primary Study Area and is assumed to continue into the Extended Study Area. The significant valleyland is associated with ESMC1.
 - The form and function of the ESMC1 valleyland will be retained on the landscape and protected by a minimum of a 15 m vegetated buffer from the greater of stable top of slope and/or physical top of bank.
 - Two underground storage tanks are proposed to outlet to the ESMC1 valleyland (one east of TESMC1 and one south of TESMC1), each through a headwall structure into a riprap spillway (it has been assumed approximately 50 m² will be disturbed within the valley floor for each outlet, outside of the wetland, to be confirmed at detailed design) at the toe of slope. These headwalls and spillways will be located within existing cultural meadow habitats. These minor alterations are not expected to cause negative impacts on the valleyland and their locations have been chosen to avoid existing treed areas.

- In addition, the ESMC1 valleyland within the Primary Study Area will be buffered with native vegetative plantings as per CH's Landscape Guidelines. The vegetative plantings will provide enhanced wildlife habitat (e.g., pollinator foraging and breeding habitat) and will protect the existing wildlife functions and linkages.
- Non-Significant Valleylands
 - One non-significant valleyland is identified within the Primary Study Area and is associated with TESMC1.
 - The form and function of TESMC1 will be protected by a 15 m vegetated buffer measured from the greater of staked top of bank, meander belt or flood plain. One watercourse crossing is proposed across TESMC1 which will be designed to support fish passage upstream, as well amphibians, reptiles and smaller mammals.
 - While amphibians, reptiles and smaller mammals were not recorded within the TESMC1 valleyland, the wildlife crossing will consist of a span across the existing wetland that will be designed to have an openness ratio of 1.3 that will support the movement of amphibians, reptiles and smaller mammals. If, at detailed design, the crossing size is modified, the proposed openness ratio should be confirmed to meet CH guidelines. The proposed crossing will allow for the movement of smaller wildlife from the ESMC1 valleyland into the restoration and enhancement area. Wildlife fencing will also be included to discourage the movement of wildlife across the driveway and to encourage movement towards to the wildlife crossing.
- Significant Woodlands
 - No significant woodlands were identified within the Primary Study Area however, candidate significant woodlands may be present within the Extended Study Area.
- Non-Significant Woodlands
 - Three CUW vegetation communities were identified within the Primary Study Area. These woodland patches are isolated and do not provide significant ecological functions (significant wildlife habitat, habitat for SAR).
 - A total of 0.093 ha of CUW habitat is proposed for removal to accommodate development. Native plantings will be planted within the vegetated buffer zones adjacent to the retained NHS features to compensate for this minor tree removal. Where trees are proposed for removal, arboricultural best management practices should be undertaken to prevent damage to retained trees. Tree removals should be completed outside of the migratory bird breeding period (generally April 15 to August 15) and outside of the bat active period (generally April 1 to October 31), where possible.
- Significant Wildlife Habitat
 - The following SWH types were identified within the Primary Study Area:
 - Turtle wintering within ESMC1;
 - Habitat for Special Concern species (Snapping Turtle) within ESMC1; and,

- Candidate terrestrial crayfish habitat within wetlands habitats associated with ESMC1.
 - All SWH types identified are located within the ESMC1 valleyland, which will be retained within the RNHS. The valleyland, within which the SWH is located, will be protected with a 15 m buffer from the greater of stable top of slope or physical top of bank. All SWH types will be protected through avoidance from direct impact.
 - No negative impacts to SWH are anticipated at this time within the Primary Study Area. Positive effects are expected through the creation of the restoration and enhancement area in the northwest corner of the Primary Study Area as well as the provision of vegetated 15m buffers to the valleyland. While these wetlands will not be designed specifically for turtle usage, the wetlands will provide opportunities for other wildlife (e.g., foraging habitat for insects, birds and bats).
- Fish Habitat
 - Two regulated watercourses were identified within the Primary Study Area: ESMC1 and TESMC1. Based on the results of fish community sampling, TESMC1 provides seasonal, direct fish habitat and ESMC1 provides permanent, direct fish habitat for a cool-warmwater fish community. It is expected that ESMC1 upstream of the Primary Study Area (within the Extended Study Area) provides direct fish habitat, barring no barriers to upstream fish movement within the watercourse.
 - The bankfull channel of ESMC1 is located a minimum of 34 m from the proposed tableland development, as it is located within a defined valleyland with a substantive flood plain on either side of the feature. As discussed within the SSWS, the valleyland will be protected by a 15 m vegetated buffer from the greater of the long-term stable slope and the physical top of bank. TESMC1 will be protected by a minimum of a 30 m vegetated buffer from the watercourse.
 - One crossing of TESMC1 is proposed via a 20 m span crossing across a 16m wide extent of riparian wetland. No in-stream infrastructure associated with the span bridge is required and the footings will be setback 2m on either side of the wetland. The proposed span crossing will not impede fish passage and will allow for flows and allochthonous material conveyance to downstream fish habitat.
 - No in-stream work is required to facilitate the construction of the crossing. It is anticipated that the existing farm crossing of TESMC1 (downstream of the proposed crossing) will be used to access the eastern side of the watercourse during the construction of the proposed crossing. Given the width of the existing crossing of TESMC1, no widening should be required to facilitate its use by construction vehicles.
 - Overall, it is anticipated that a positive impact to fish and fish habitat will be achieved due to the installation and establishment of the vegetated buffers (many areas of which currently consist of active agricultural operations), the provision of wetland restoration and enhancement areas and the removal of the existing undersized culvert along TESMC1 to be replaced with a span crossing designed

to accommodate fish and wildlife passage. Construction monitoring of ESC measures and spill prevention and response measures is recommended. Monitoring of vegetation growth of buffer and wetland compensation areas is also recommended. Finally, post-construction monitoring of fish and benthic communities within TESMC1 and ESMC1 is recommended.

- Watercourses and HDFs
 - All regulated watercourses (ESMC1 and TESMC1) and their associated flooding and erosion hazards (e.g., meander belt or stable top of bank) will be protected in-place within the refined RNHS.
 - As noted, these watercourse features will primarily be protected from development and site alteration through avoidance. One span crossing is proposed across TESMC1. Localized impacts from the proposed removal of the existing culvert crossing along TESMC1 will result in positive long-term changes in ecological connectivity. No impact on seasonal fish habitat usage and productivity of the watercourse is anticipated.
- Groundwater
 - At this time, it is not expected that the development will require an underground basement or below-grade parking. As a result, DS estimates that the only excavation will be in support of site servicing. Site servicing trenches are expected to be dug through the clayey silt till, silty clay till, sandy silt till and silty sand till deposits. No major groundwater seepages are anticipated during construction. However, seepage may occur during high precipitation events and seasonally higher groundwater levels. Groundwater may be controlled by pumping from sumps. Construction dewatering will be required for excavations extending into the sandy silt to silty sand till deposits.
- Mitigation Measures
 - The following mitigation measures are recommended to avoid and/or mitigate potential effects:
 - Implement ESC measures to protect existing watercourses and retained HDFs during construction activities;
 - Implement the water balance objectives for groundwater and surface water runoff;
 - Implement vegetated buffers;
 - Installation of a permanent fence along the outer buffer limits to discourage access to the RNHS lands;
 - Implement LID techniques to maintain surface water inputs into the natural features present in the Primary Study Area;
 - No storage of equipment, materials or fill within natural areas or their vegetated buffer zones;
 - Construction machinery should be maintained during the construction period within a designated location away from the RNHS;
 - Areas of bare soil should be re-vegetated as soon as possible to prevent mobilization of soils. Should any stockpiles be required as a result of grading activities, they should be graded and seeded to reduce erosion potential;

- No trails are proposed within the RNHS. Given the proposed land use (hotel and waterpark) it is not anticipated that there will be a demand for a trail connection along the western side of the ESMC1 and TESMC1 valleylands;
- Design the site to ensure grading (including feathered grades) remain outside of CH's regulated area and the RNHS buffers, with the exception of grading that will be required within 30 m of the re-created wetlands in the northwest corner and minor grading associated with stormwater outfalls. Grading in the northwest corner is required in order to direct surface flows northerly and is in an area that is currently in agricultural production, which sees annual grading and disturbance due to plowing and planting adjacent to the wetlands in this area. As such, this minor grading to re-direct surface flows will not have a negative impact on the existing wetlands to any greater extent than the existing agricultural operations; and
- Litter and debris should be removed from the construction areas on an ongoing basis to limit the potential for it to be introduced into the RNHS.

The SSWS concluded with a synopsis which confirms the achievement of the Scoped SWS Terms of Reference Requirements:

Scoped SWS Terms of Reference Synopsis Requirement	Scoped SWS Synopsis
Natural / semi-natural cover targets and constraints	<i>As identified within the SSWS, the new RNHS will total 11.32 ha within the Primary Study Area, of which 3.76 ha (33%) of meadow habitat will be provided, 3.88 ha (34%) of wetland and 3.68 ha of woodland habitat (33%).</i>
Stormwater flow and volume constraints for flood and erosion control	<i>As outlined in Section 8, water quality and quantity control will be provided through the provision of on-site stormwater management facilities including infiltration trenches and underground storage tanks. An erosion threshold analysis has resulted in a target erosion release rate that has been achieved through the proposed stormwater management design with discharge to ESMC1.</i>
Constraints on urban development to meet flows and volume targets	<i>As outlined in Section 8, stormwater management facilities will need to be provided to control stormwater prior to release to the on-site watercourses. The proposal includes the provision of two underground stormwater tanks as well as LID features to achieve the required flow and volume targets.</i>

Susceptibility of groundwater to contamination from urban stormwater infiltration	<i>Infiltration of clean sources of storm water including roof and pervious area runoff should be supported to avoid infiltration of contaminants typically associated with urban stormwater such as chloride and sodium from de-icing activities and metals and oil/grease from vehicles. Where impervious paved surface are expected to contribute to infiltration measures, stormwater should first be treated to remove suspended solids and oil/grit. To minimize sodium and chloride, measures to avoid the use of de-icing salts should be considered.</i>
Potential recharge and discharge zones to maintain / enhance base flow and water temperature in the stream	<i>No significant recharge or discharge zones were identified within the Primary Study Area. LID measures are proposed to enhance base flow, support on-site wetlands and to provide thermal mitigation.</i>
Existing sources of pollution and corresponding remedial action	<i>No existing sources of significant pollution were identified. Sediment inputs from the surrounding agricultural lands within the Primary Study Area will be eliminated and stormwater management controls will be put in place.</i>
Water quality targets based on desired fish community objectives and feasible methods for managing water quality	<i>Water quality targets are based on MECP enhanced level requirements to achieve a minimum 80% TSS removal. The provision of bioswales, OGS units, underground stormwater tanks and LID measures will also mitigate quality and thermal impacts to the receiving watercourse.</i>
Constraints on urban development to maintain / enhance water quality	<i>Stormwater management measures have been incorporated into the proposed development along with naturalized buffers to the Key Features and components of the RNHS.</i>
Circumstances which promote or affect the feasibility of target fish species	<i>The target fish community will be a cool-water fisheries with the potential for migratory salmonids. All restoration/enhancement works proposed will work to mitigate against negative effects to fish habitat. The impact assessment for fish habitat (as discussed within Section 8.3.7) speaks to the mitigation measures proposed to avoid negative effects.</i>
Constraints on urban development to enhance fish habitat	<i>Stormwater management measures have been incorporated into the proposed development along with naturalized buffers to the Key Features and components of the RNHS.</i>

NHS and associated restoration opportunities (including, but not limited to, wetlands, ESAs, stream corridors, CH regulated areas, ANSIs)	<i>As outlined in Section 8.3 of the SSWS, the RNHS has been refined based on the findings of this study and includes all required Key Features and RNHS components as well as proposed wetland re-creation areas.</i>
NHS and stream corridor management boundary for the streams and other natural heritage features within the sub-watershed, with consideration for adjacent features. The stream corridors should be determined so as to include natural features where protection and preservation is important to meet the goals and objectives of the study. Features to be included are flood plains, wetlands, woodlands, erosion prone areas, significant wildlife areas, ecologically important areas and any recommended buffers	<i>The NHS and stream corridor boundaries have been determined based on site specific ecological fieldwork, modelling, fluvial, hydrogeological and geotechnical studies. The stream corridors have been defined based on the greater of 15m from the stable top of bank, physical top of bank, Regional Storm flood plain and meander belt as well as 30m from watercourses and 30m from wetlands.</i>
Confirmation that the proposed development will result in no negative impacts to the portion of the RNHS adjacent to the development, as required I Section 118(3) of the ROP and the systems approach outlined in Section 118(2).	<i>As outlined in Sections 9.2.1 and 9.2.3, the Scoped SWS has been completed in conformance with the requirements of the PPS and ROP and has demonstrated no negative impacts to the RNHS adjacent to the development and has been completed on a systems-based approach.</i>

7.0 TECHNICAL STUDIES

7.1 Employment Analysis and Scoped Needs Assessment (Tate Economic Research Inc.) (March 2022)

The Town of Halton Hills retained Tate Economic Research Inc. (TER) to conduct an Employment Analysis and Scoped Needs Assessment for an integrated recreation / entertainment development consisting of a waterpark, hotel and conference centre with ancillary uses. The Terms of Reference was prepared and approved by the Town of Halton Hills which set out the methodology of the assessment. The mandate of the study was to:

“To analyze the opportunity for the Subject Lands, including confirming its function as a major employment generating commercial use and evaluating its impact, if any, on the 2B Secondary Plan in process with respect to recommended designations and policy framework related to supportive commercial uses.”

Further, at the request of Halton Region, the Terms of Reference also includes the following reference:

“As part of this analysis, TER will examine:

- *Whether the use is appropriate within the policy formulation context underway for the 2B Premier Gateway Employment Area Secondary Plan and the Region Official Plan, including Section 77 (20.1) b)”*

This was requested as a result of the Minutes of Settlement from the resolution of the appeal of ROPA 47 (as set out above).

The report has been summarized into the following findings:

- *The Subject Site is situated within the Phase 2B Employment Area in the Premier Gateway Employment Area.*
 - Minutes of Settlement (pertaining to the land owner’s appeal of Regional Official Plan Amendment 47) between the land owner, the Town of Halton Hills and Region of Halton allow for the land owner to bring forward a development proposal by way of a site-specific Official Plan Amendment application that will serve to integrate the Subject Site into the Phase 1B Employment Area Secondary Plan, which applies to the lands west of Eighth Line and north of Steeles Avenue.
 - The land owner has opted to exercise this right to proceed with an application within the Phase 1B Employment Area. A Secondary Plan was approved for the Phase 1B Employment Area on February 23, 2021.
 - The Phase 2B Employment Area is currently the subject of a Secondary Plan review.
- *The Proposed Development is consistent and complimentary with existing and proposed uses in the Premier Gateway Employment Area.*
 - The lands are kitty corner to the Subject Site are designated Gateway Area and are within the Gateway Employment Area. These lands are occupied by the Toronto Premium Outlets.

- The Proposed Development is adjacent to the current eastern boundary of the Phase 1B Employment Area. The Proposed development is adjacent to designated Prestige Industrial Area lands.
 - The lands immediately to the west of the Subject Site in the Phase 1B Employment Area are subject to the development application for warehouse uses on a 74-acre parcel.
 - Although the Subject Site is in the Phase 2B Employment Area planning area, the Subject Site is physically separated from the remainder of the Phase 2B Employment Area by Sixteen Mile Creek.
- *Based on an examination of the comparable waterparks, it is the opinion of TER that the Proposed Development represents a viable concept from an on-site programming perspective.*
 - The Proposed Development has all the elements of the comparable successful waterparks.
 - These amenities include restaurants, family entertainment activities and hotels located either on-site or in-proximity.
- *The Proposed Development is well located from the perspective of surrounding uses and accessibility.*
 - The Proposed Development provides a solution for an irregular shaped land parcel that may be difficult to develop for typical industrial uses.
 - The Proposed Development would be consistent and complementary with some of the surrounding uses, specifically the Toronto Premium Outlets.
 - The Proposed Development will benefit from the visibility provided by its proximity to the Toronto Premium Outlets and the traffic generated by the Outlets.
 - The Proposed Development requires a regional draw, which will be facilitated by its location and ease of access via Highways 407 and 401.
- *The market area surrounding the Subject Site possesses the population and expenditure characteristics required for the successful operation of the Proposed Development.*
 - Most attractions are supported by the surrounding travelling public. There are approximately 2.9 million people living within a 30-minute drive of the Subject Site. There are approximately 8.4 million people living within a 60-minute drive of the Subject Site.
 - On average, households within a 60-minute drive time of the Subject Site spend \$3,128 on recreational services. This is similar to the two GTA waterparks (Wet 'n' Wild and Splash Works at Canada's Wonderland).
 - The Subject Site represents a clear opportunity for a hotel use based on the lack of hotels at the Highway 401 / Trafalgar Road intersection and Halton Hills in general.
 - There are several secondary uses planned in the Proposed Development. It is the opinion of TER that these uses are ancillary to the main waterpark use. These uses, such as the food hall, restaurant, flying theatre, family entertainment centre and spa, will all have demand synergies with the hotel and waterpark use and therefore are considered appropriate uses on the Subject Site.
- *The Proposed Development can be considered a major employment generator.*

- Based on standard employee per square foot and employee per hotel room metrics, the Proposed Development would generate between 525 to 895 employees on-site. This represents direct employment and does not include indirect or construction employment.
 - The on-site direct employment represents an employment density of 67 to 115 jobs per hectare.
 - The major employment generation at the Proposed Development will contribute to balancing the low employment generated within the logistics and warehouse developments which can range from 5 to 30 jobs per hectare. The demand for logistics and warehouse facilities is expected to remain strong in the GTA as e-commerce continues to grow and demand for associated logistics and warehouse facilities increases.
- *It is the opinion of TER that the Proposed Development will not impact the employment land development in the larger Premier Gateway Employment Area in which it is located.*
 - The lands immediately to the west of the Subject Site in the Phase 1B Employment Area are subject to the development application for warehouse uses on a 74-acre parcel.
 - The Proposed Development is physically separated from the remainder of the Phase 2B Employment Area by the Sixteen Mile Creek tributary feature and therefore will not be a detriment to future employment uses.
 - It is noted there were similar concerns raised about the impact of Toronto Premium Outlets when it was initially proposed. However, currently there are two major employment development applications in the Phase 1B Employment Area. One of these development applications is located directly opposite Toronto Premium Outlets.
 - We assume that the proposed widening of Steeles Avenue West will accommodate future traffic and mitigate issues anticipated by the increased traffic at the Subject Site.
 - The main access to Phase 1B is via Trafalgar Road to the west. There is also a collector road proposed west of Trafalgar Road. In addition, there is also a collector road proposed within the Phase 2B Employment Area which will alleviate traffic along Steeles Avenue.
 - Components of the Proposed Development such as the food services and hotel will play a supportive commercial role, serving the surrounding employment lands.

It is the opinion of TER that the Proposed Development represents a major employment use based on its scale and the potential employment density. Furthermore, it is our opinion, based on the location and surrounding uses, that the Proposed Development will not impact the employment land development in the larger Premier Gateway Employment Area.

Therefore, it is the opinion of TER that the Proposed Development should be approved on the basis of market demand and potential to generate employment.

7.2 Functional Servicing Study and Stormwater Management (C. F. Crozier) (March 2022)

C.F. Crozier & Associates Inc. (Crozier) was retained by the client to prepare a functional servicing report (FSR) in support of the OPA. The report documented a functional level servicing strategy for the proposed development to confirm it can be supported by Town and Regional infrastructure. Please note, as set out in the enclosed FSR, a Scoped Area Servicing Plan is underway and will be submitted in support of the proposed development. This work will include the review and assessment of the Region's existing and future local infrastructure to confirm the impact upon the Region's network. This approach has been discussed with authorities and is believed to be appropriate due to the nature of the development and the level of coordination which has already occurred through the SSWS.

Within the FSR, Crozier concludes that the proposed development can be serviced for water and sanitary in accordance with the Town of Halton Hills and Halton Region requirements and standards. Crozier's conclusions and recommendations include:

1. Water demand for the proposed development can be provided by a connection to the future 300 mm dia. watermain on Eighth Line. Internal water servicing for the proposed development will be provided using a looped 200 mm dia. water service.
2. Sanitary flow for the proposed development can be provided by a connection to the future 1200 mm dia. sanitary trunk sewer on Eighth Line. Internal sanitary servicing for the proposed development will be provided using an internal network of 250mm diameter sanitary sewers.
3. Stormwater quantity control is per the unit flow rate and cumulative unitary volume determined by MGM as part of the Scoped SWS. Storage is proposed on site to provide control of the 100-year storm through underground cisterns, while volume required in excess of the 100-year storm event will be provided through surface storage. The two catchments within the developable area will outlet to two separate headwalls discharging flows to the watercourse.
4. Stormwater quality control for the proposed development will be met by Jellyfish Filter systems, providing the minimum 80% removal of total suspended solids on an annual loading basis for 90% of runoff leaving the site.
5. Site-specific and feature-based water balance will be provided through the use the LIDs at the detailed design stage.

Based on the conclusions and recommendations indicated above, Crozier confirms that the Site can be serviced according to the Town of Halton Hills and Halton Region requirements subject to the municipal servicing strategy that will be outlined in the Scoped Area Servicing Plan to be submitted in the future under separate cover. Crozier therefore recommends approval of the planning application for the proposed development from the perspective of functional servicing requirements.

7.3 Traffic Impact Study (C. F. Crozier) (March 2022)

C. F. Crozier was retained to complete a Traffic Impact Study to support the feasibility of the Official Plan Amendment for the proposed development of the subject lands. The study reviewed the proposed development and the following was analyzed from a transportation engineering perspective:

- Existing, future background and future total traffic operations on the boundary road network;
- Forecasted trip generation and distribution of the proposed development; and
- Mitigation measures to support the proposed development, if required.

The scope of the study has been completed in accordance with Terms of Reference established with the Town of Halton Hills, the Region of Halton and the Ministry of Transportation (please see the full report for the approved terms of reference).

The analysis resulted in the following key findings and recommendations:

Existing Conditions

- The study intersections are currently operating at a level of service (LOS) 'E' or better. Several movements are operating above what is considered critical capacity and multiple movements with a volume-to-capacity (v/c) ratio greater than 1.00.
- Based on SimTraffic analysis vehicle queuing is expected to exceed the available storage for several movements on the boundary road network.
- It is recommended that the Town and Region continue to monitor queueing constraints, in order to provide extended queueing where available with the planned roadway improvements.
- The optimization of signal timing splits improved all movements to a LOS 'D' or better and reduced all v/c ratios to less than 1 at the study intersections.
- Signalization of Eighth Line and 5 Sideroad is recommended under existing conditions.

Future Background Conditions

- The Highway 401 off-ramps were grown by 1.5% at the request of the MTO and 1.8% at all other study intersections to be in line with the Premier Gateway Study.
- There are several future roadway improvements planned for the boundary road network including:
 - Widening of Trafalgar Road from 2 to 4 lanes north of Steeles and 4 to 6 lanes south of Steeles,
 - Widening of Steeles Avenue from 4 to 6 lanes,
 - Highway 401 off-ramp improvements;
 - A new MTO carpool lot across from the Highway 401 westbound off-ramp.
- Several background developments were reviewed, and volumes were added to the boundary road network including:
 - The MTO Carpool Lot as part of the Toronto Premium Outlet expansion report
 - 8154 Eighth Line
 - 8173 Trafalgar Road
 - 1145 Steeles Avenue
 - 12144 Steeles Avenue
 - 12635 Steeles Avenue
- It is recommended that signal timings be reviewed and optimized at the same time as the build-out of roadway improvements.

- The boundary road network maintains acceptable levels of service after background growth and improvements, with the exception of Trafalgar Road and Steeles Avenue which operates at an LOS 'F' during the weekday a.m. and Saturday peak hours.
 - At Steeles and Trafalgar several movements operated above a volume to capacity ratio of 1.00 and several queueing movements exceed the available storage.
- Signalization of Eighth Line and 5 Sideroad, as recommended in the Eighth Line EA, should be finalized before the 2026 horizon to help mitigate the almost 2 minutes of delay for southbound volumes during the weekday a.m. peak hour.
- Both Highway 401 off ramps experience v/c ratios greater than the MTO's critical ratio of 0.75, however the intersections are operating under acceptable levels of service and minimal control delay.

Development Conditions

- The development as a whole is expected to generate a total of 370 and 600 two-way weekday a.m. and p.m. peak hour trips, respectively, as well as 720 two-way Saturday peak hour trips.
- It was found signalization was not warranted at the consolidated Eighth Line site access.
- It was found that 50m of storage for northbound right-turn volumes and 25m of storage for southbound left-turn volumes was warranted under the 2036 horizon at the Eighth Line site access.

Future Total Conditions

- Mitigation measures across all intersections include increasing signal timing cycle lengths, signal optimization, providing maximum signal recall to movements with critical volumes.
 - Providing protected-permitted signals to the southbound left-turn movement at the intersection of Eighth Line and Steeles Avenue.
 - Providing protected-permitted signals to the northbound-left and all westbound movements that the intersection of Trafalgar Road and the Highway 401 Westbound Off-ramp is recommended.
- The boundary road network is forecasted to continue to operate at acceptable levels of service, with the exception of Steeles Avenue and Trafalgar Road, consistent with the future background operations.
- While the intersection of Eighth Line and Steeles Avenue is forecasted to operate with an LOS 'E' under the p.m. peak hour. The expected control delay is less than a minute and the WBT v/c ratio of 1.10 is not uncommon on a major arterial roadway during peak commute hours. The additional eastbound left turn volumes are expected to remain contained with the available storage and taper with the updated signal timings.
- Signal timing mitigations at the intersection of Steeles Avenue and Trafalgar Road are expected to reduce v/c ratios, yet they remain critical and westbound left-turn 95th percentile queueing increases.
 - Mitigation measures under weekday a.m. and Saturday conditions provide improved v/c ratios and queueing from the 2036 Future Background scenario.
- The intersection of Eighth Line and 5 Sideroad is forecasted to continue to operate with v/c ratios no greater than 0.85.
- Though signalization of the consolidated site access on Eighth Line was not warranted, operations under the p.m. peak hour produce significant delays to vehicles exiting the site.
 - Having volumes use all three accesses will improve operations.

Eighth Line Sensitivity Analysis

- The Town of Halton Hills is currently undertaking a Schedule C Municipal Class EA for Eighth Line from Steeles Avenue to Maple Avenue.
 - A three-lane cross-section with a continuous centre turn-lane on Eighth Line was reviewed as a sensitivity analysis.
 - Auxiliary left turn lanes on 5 Sideroad as considered as part of the EA were also reviewed as part of the sensitivity analysis
- The addition of turning lanes improves the LOS at the intersection of Eighth Line and 5 Sideroad and mitigates the need for an auxiliary southbound turning lane at the proposed consolidated site access.
 - The expected operations at the consolidated site access no longer require signalization.
- The two-way turn lane will extend the available storage for southbound let-turns at the intersection of Eighth Line and Steeles Avenue.
 - The critical v/c ratio of 1.10 (WBT) for the p.m. peak hour at that intersection, is unchanged. This v/c ratio is not uncommon on major arterial corridors. As previously stated, the eastbound left turn queuing should be contained within the available taper.

Street 'B' Sensitivity Analysis

- Based on the geometrics presented in the Premier Gateway Study a sensitivity analysis was undertaken for the proposed Street 'B'.
- Background volumes provided in the 8154 Eighth Line TIS and reassigned site generated volumes were used to assess the new roadway, without redistributing existing volumes on the road network.
- The proposed intersections of Street 'B' and Eighth Line and Street 'B' and Trafalgar Road are expected to operate acceptably under Future Background conditions.
- Under Future Total conditions, Eighth Line and Street 'B' is expected to operate with an LOS 'E' or better with less than one minute of delay.
- The intersection of Steeles Avenue and Trafalgar Road operates with improved levels of service when compared to the 2036 Future Total operations pre-mitigations.
 - The signal timing of Steeles Avenue and Trafalgar Road as well as Steeles Avenue and Eighth Line should be reviewed after the build-out of Street 'B' and the redistribution of volumes has occurred.
- The consolidated access under unsignalized conditions is expected to operate with acceptable delay, with the exception of the weekday p.m. peak hour, which is expected to operate with 96.7 seconds of delay.
 - Future studies should review the individual access, as a division of volumes should improve the level of service.

Traffic Demand Management

- Currently no transit facilities exist in the vicinity of the site. The closest existing transit facilities are at Trafalgar Road and Derry Road, which are not within a distance feasible to support the proposed development. The Region of Halton's Preliminary 2031 Recommended Transit Priority Corridor Network identifies, and the 2041 Transit Priority Mobility Network identifies both Trafalgar Road and Steeles Avenue as transit priority corridors.
- It has been announced that the Town of Milton will launch a pilot project in the fall of 2022 which will provide a transit connection between the Town and the City of

Mississauga with a stop at the Toronto Premium Outlets. Should this route remain permanent it would provide a connection to many local and cross-municipal transit services in the province.

- It is recommended that the Town and Region work to establish transit routes along the boundary road network to reduce single occupancy vehicles and the impacts of growth in the area.

The consultant concludes that the Official Plan Amendment for the development concept can be supported from a transportation operations perspective, with the implementation of planned improvements and the noted recommendations.

8.0 OFFICIAL PLAN AMENDMENT

As set out in the previous section, the associated Minutes of Settlement effectively requires the completion of a Local Official Plan Amendment in advance of the completion of a Secondary Plan process for the subject lands. This amendment expedites the planning of the subject lands ahead of the secondary planning exercise for Phase 2B Employment Lands which is currently underway.

The Official Plan proposes to re-designate the subject lands to *Phase 1B Employment Area* as well as establish site-specific provisions on the subject lands (See Appendix A). Further, a special policy area is proposed which will permit the following uses:

- a) Place of entertainment, including:
 - amusement rides and structures
 - waterpark slides, wave pools and other water related entertainment structures;
 - games of skill or chance;
 - *retail* directly associated with the place of entertainment park use;
 - e-sport and e-gaming;
 - go-carting;
 - office uses directly associated with the theme park use;
 - outdoor storage areas associated with the maintenance and operation of the theme park;
 - maintenance buildings and facilities associated with the maintenance and operation of the theme park;
 - parking for patrons and employees;
 - water, sanitary and stormwater management facilities; and,
 - landscaping, buffering, berms, fences, signage, internal private streets and parking may be used on the boundary edges to create an appropriate transition to neighbouring development
- b) Full service hotels including full service hotels with conference and exhibition facilities;
- c) Conference and exhibition facilities;
- d) Take out restaurants provided they are incorporated into larger developments and are ancillary to the primary use;
- e) Retail commercial uses not exceeding individual areas 2,750 square metres in floor space and a total area of up to 10,000 square metres in total retail spaces;
- f) Theatres, cinemas and similar places of entertainment but not an adult entertainment establishment;
- g) Spa, Wellness Centres with associated outdoor pools;
- h) Miniature Golf;
- i) Tree-top climbing and Zip Line Adventure Park;
- j) Drive-through Service Facility
- k) Business and professional offices in free standing buildings;
- l) Industrial uses within wholly enclosed buildings, such as manufacturing, assembling, processing, fabricating, warehousing, wholesaling and distribution facilities;
- m) Research and development facilities;
- n) Printing and associated service establishments;

- o) Industrial malls, containing one or more of the permitted uses in this designation;
- p) Computer, electronics and data processing facilities;
- q) Full-service restaurants;
- r) Two or more full-service restaurants which may be developed in a "campus" development, subject to a comprehensive site development plan in order to achieve well-designed and integrated development; including:
 - Integrated internal circulation and parking areas;
 - coordinated access points, in order to minimize the number of access points to abutting roads;
 - compatible building design and location;
 - complementary landscaping; and,
 - Consistent signage and lighting facilities

The proposed Official Plan Amendment has been structured to specifically address the uses envisioned within the proposed development. It also ensures that the subject lands are afforded the flexibility to develop with a broad array of employment generating uses.

Language within the Official Plan Amendment has been included to ensure the development of the subject lands, can occur with the proposed uses and without delay (once approvals have been received). As such, provisions are proposed to ensure that upon approval of the OPA, the development can occur in advance of the Phase 2B Secondary Plan. This would ensure that the future Zoning By-law Amendment and Site Plan Control applications are not dependent upon the resolution of the Secondary Plan process. Separate provisions have also been proposed which are intended to prevent delays which may otherwise occur through the approval of the Scoped Sub-Watershed Study. It is proposed that the future Zoning By-law Amendment application is not held up by the administrative requirements necessary for the approval of the SSWS. It is believed that this language is appropriate due to the current status of both processes and the timing required to advance this project into fruition.

9.0 CONCLUSION

As set out in the previous sections, an Official Plan Amendment has been submitted which is proposing to redesignate the subject lands to *Phase 1B Employment Area* and introduce new uses. This application is necessary to permit a development which is proposed to include a waterpark, hotel and other uses. Through historical decisions, the application has been allowed to be advanced ahead of planned development phasing. However, it is required that this be supported by the completion and submission of additional justification and technical study. Generally, the proposed development and implementing Official Plan Amendment application results in:

- Consistency with the relevant policies of the 2020 Provincial Policy Statement with respect to development within settlement areas, the protection of employment areas, allowing development in established urban areas where services and infrastructure exist or are planned and the protection and enhancement of the natural heritage system.
- Compliance and conformance to the Growth Plan as it accommodates the planned employment forecasted for the Halton Region. The proposed development will facilitate the continued creation of complete communities due to the subject lands proximity to several urban centres and its ability to provide extensive employment opportunities alongside new and unique types of recreation and tourism. Further, the proposed development has been prepared through the completion of a Scope Sub-Watershed Study.
- Resolution of the Minutes of Settlement on the basis that the proposed application has satisfied the Provincial, Regional and Local requirements on phasing, confirmation of employment, economic development, protection and enhancement of the natural heritage system. Specifically, the proposed development resolves each of the requirements as follows:
 - The proposed development has been confirmed to be able to be integrated into an Area Specific Plan as it has been established that it will result in the protection of the Regional Natural Heritage System, the achievement of overall Regional employment targets (including Designated Greenfield Area), would facilitate land use patterns which promote and achieve complete and healthy communities, considers land use compatibility, has been designed within the confines of existing or planned infrastructure (transportation, stormwater management and servicing) and which supports the intent of regional phasing (Sec. 77(5)).
 - Through the completion of the Employment Analysis and Scoped Needs Assessment, it has been confirmed that the proposed development is to be considered a major employment use.
 - That the contents of this report, alongside the other technical studies submitted, have provided a comprehensive level of planning required to support the proposed development. Although further consideration and analysis will be completed at the time of Zoning By-law Amendment and Site Plan Control, all technical work completed to date has been compiled and applied to the proposed development concept.

- Through this report, the proposed development will achieve the relevant phasing policies. Specifically, the proposed development will result in the creation of 525 to 895 jobs which will significantly assist the Region in achieving the planned 9,420 jobs identified to be achieved between 2022-2026 (F10.4 of OPA 10).
- This report has demonstrated that the development has addressed the policies of G3.1 of the Town of Halton Hills Official Plan (see point below) and effectively has provided the level of analysis of a Secondary Planning exercise. As noted, the proposed employment can be delivered on an expedited basis to achieve the planned employment to 2021, which is the basis of this proposal (D3.5.4.4.3 of the Town Official Plan).
- That the proposed development has been designed to be compatible with adjacent existing residential uses through the completion of a land use compatibility evaluation. The proposed development concept has been set back away from the existing residential uses to the northwest of the subject lands to establish a large separation distance. Additionally, the natural heritage system has been employed to create additional buffers to reduce impacts of noise, sight and smells. Further details on other compatibility techniques will be provided through the future zoning by-law amendment and site plan control applications.
- A Scoped Sub-watershed study has been undertaken for the subject lands following the completion and approval of the necessary Terms of Reference on January 20, 2020. A resubmission has recently been provided to reviewing agencies which resolves outstanding issues or comments. The Scoped Sub-Watershed Study has been completed in conformance with the requirements of the PPS and ROP and has demonstrated no negative impacts to the RNHS adjacent to the development.
- Technical analysis's on Servicing, Stormwater Management and Transportation have been conducted following the review and comment of the respective Terms of References. Each report has evaluated existing and planned conditions to confirm that the proposed development can occur without impact to the planned function of the area.
- As set out in the enclosed Draft Official Plan Amendment, the subject lands are proposed to be redesignated as *Phase 1B Employment Area* alongside the introduction of new permitted uses. Additional analysis has been conducted to ensure that the integration of the subject lands within the Premier Gateway Phase 1B Secondary Plan can occur without impact or delay to the established land use planning framework.
- Compliance and conformance with the Region of Halton Official Plan policies including those related to the *Regional Natural Heritage System* and *Urban Area* designations. Specifically, through the completion of the Scoped Sub-Watershed Study, the identification, protection and enhancement of several key features including valleylands, habitat of endangered or threatened species, wildlife habitat, linkages, watercourse (amongst others) has been incorporated within the proposed development concept. The ROP policies associated with Employment Area included central objectives which have been achieved as the proposal will utilize the lands with employment uses and provides

opportunities for a diversified economic base. Through ROPA 47, additional lands have been added to address employment shortfalls and achieve employment targets to 2031. The proposed development will assist in achieving this direction through the use of the planned short-term municipal servicing.

- Compliance and conformance to Conservation Halton policies including Ontario Regulation 162/06 which requires compliance with regulated features including flooding, erosion hazards, wetlands (amongst others). Through the assistance of Conservation Halton, the Scoped Sub-Watershed Study has been completed in conformance with the requirements of the PPS and ROP and has demonstrated no negative impacts to the RNHS adjacent to the development. It is also acknowledged that a development permit will be required prior to undertaking any development.
- Compliance and conformance to the intent and objectives of the Town of Halton Hills Official Plan. Although modifications are proposed, the redesignation of the subject lands to *Phase 1B Employment Area* respects the planned function of the Premier Gateway Employment Area through the proposed introduction of new permitted uses which have been confirmed to result in a major employment generating use. Further, the proposed development is compliant with the policies of the *Greenland* designation, as set out in the Scoped Sub-Watershed Study. The proposed development has demonstrated compliance to the policies of Sec. G3.1 which establishes the areas to be addressed within a Secondary Plan. Through this, the development has established employment targets, a diverse mix of employment uses, the achievement of environment-first objectives, addresses urban design policies, can occur within the planned transportation network, can occur within the planned water and wastewater servicing network, facilitates the creation of healthy and complete communities and addresses land use compatibility. As mentioned, the development is supported by a Scoped Sub-Watershed Study, Functional Servicing Plan, Transportation Study and an Employment Analysis. Finally, a public consultation strategy has been set out which outlines the steps anticipated to engage area residents.

In conclusion, this Planning Justification Report demonstrates that the proposed Official Plan Amendment required to support the development concept represents good planning and is in the public interest.

Prepared by:

Nick Wood

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Vice-President, Development Planning
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Approved by

John Corbett

John B. Corbett, M.C.I.P., R.P.P.
President, Development Planning
john@corbettlandstrategies.ca

APPENDIX A

Draft Official Plan Amendment



BY-LAW NO. 2022-

A By-law to adopt Amendment No. xx to the Official Plan of the Town of Halton Hills, 8079 Eighth Line, Part of Lot 1, Concession IX, former Township of Esquesing, in the Town of Halton Hills
(File: xxx.xxx)

WHEREAS the Council of the Corporation of the Town of Halton Hills, is empowered to enact this By-law by virtue of the provisions of the Planning Act, 1990, R.S.O., c.p. 13, as amended;

AND WHEREAS the Regional Municipality of Halton, as the approval authority, has exempted this Official Plan Amendment from their approval;

NOW, THEREFORE, BE IT RESOLVED THAT THE COUNCIL OF THE CORPORATION OF THE TOWN OF HALTON HILLS ENACTS AS FOLLOWS:

1. That Amendment No. xx to the Official Plan of the Town of Halton Hills, being the attached text and schedules is hereby approved;
2. That the Town Clerk is hereby authorized to circulate the Official Plan Amendment as provided for by the Planning Act regulating the appeal process.

BY-LAW read and passed by the Council for the Town of Halton Hills this xx day of xx, 2022.

MAYOR – RICK BONNETTE

CLERK – SUZANNE JONES
OFFICIAL PLAN AMENDMENT No. xx

TO THE OFFICIAL PLAN FOR THE TOWN OF HALTON HILLS

PART A: **THE PREAMBLE** does not constitute part of this Amendment

PART B: **THE AMENDMENT** consisting of the following Schedule and Text constitutes
Amendment

**AMENDMENT NO. xx TO THE OFFICIAL PLAN
OF THE TOWN OF HALTON HILLS**

The attached text and schedules constitute Amendment No. xx to the Official Plan of the Town of Halton Hills, which was adopted by the Council of the Town of Halton Hills by By-law 2020-_____ in accordance with the provisions of the Planning Act, 1990. R.S.O., c.P. 13, as amended;

THE CORPORATION OF THE TOWN OF HALTON HILLS

MAYOR – R. Bonnette

CLERK – S. Jones

PART A – THE PREAMBLE

PURPOSE OF THE AMENDMENT

The purpose of this Amendment is intended to redesignate the lands known as 8079 Eighth Line (“subject lands”) to “Phase 1B Employment Area” and permit additional uses within the Premier Gateway Employment Area for the Town of Halton Hills. The amendment is for the purposes of an integrated recreational/entertainment development consisting of a water park, hotel and conference centre as well as industrial/non-residential uses.

Under the Town of Halton Hills Official Plan the subject lands are currently designated *Phase 2B Employment Area*.

The approved policies for the Official Plan do not allow certain uses within the proposed development. The Amendment proposes to add a new Special Exemption to allow the proposed development, as shown in Schedule 1 attached to and forming part of this By-Law.

LOCATION AND SITE DESCRIPTION

The subject site is legally described as Part of Lot 1, Concession IX, former Township of Esquesing, in the Town of Halton Hills and is municipally known as 8079 Eighth Line. The subject lands are located north east of Steeles Avenue and Eighth Line. The lot has an approximate area of 19 hectares (47 acres) and has roughly 250 metres of frontage along Steeles Avenue and 320 metres of frontage along Eighth Line.

Surrounding land uses to the property include:

- To the North: Agricultural Uses
- To the East: Agricultural Uses
- To the West: Eighth Line, Rural Residential, Employment
- To the South: Steeles Avenue, Toronto Premium Outlets

The subject lands are currently vacant.

PART B – THE AMENDMENT

All of this part of the document consisting of the following Schedule and Text constitutes Amendment No. xx of the Official Plan for the Town of Halton Hills.

DETAILS OF THE AMENDMENT

The Official Plan for the Town of Halton Hills is amended as follows:

1. That Schedule A8 – Premier Gateway Employment Area Land Use Plan is hereby amended by making the lands “Phase 1B Employment Area” and marking with a number “x” and adding a solid red line around the lands shown in Schedule ‘1’ to this amendment, municipally known as 8079 Eighth Line.
2. That Section D6.4.4, of the Official Plan for the Town of Halton Hills is hereby amended by adding a new subsection, which shall read as follows:

“D6.4.4.4.x Special Policy Area x

That an integrated recreational/entertainment development consisting of a water park, hotel, and conference centre (with ancillary uses) as well as additional industrial/non-residential uses be permitted.

That permitted uses on the subject lands be limited to:

a) Place of entertainment, including:

- **amusement rides and structures**
- **waterpark slides, wave pools and other water related entertainment structures;**
- **games of skill or chance;**
- ***retail* directly associated with the place of entertainment park use;**
- **e-sport and e-gaming;**
- **go-certing;**
- **office uses directly associated with the theme park use;**
- **outdoor storage areas associated with the maintenance and operation of the theme park;**
- **maintenance buildings and facilities associated with the maintenance and operation of the theme park;**
- **parking for patrons and employees;**
- **water, sanitary and stormwater management facilities; and,**
- **landscaping, buffering, berms, fences, signage, internal private streets and parking may be used on the boundary edges to create an appropriate transition to neighbouring development**

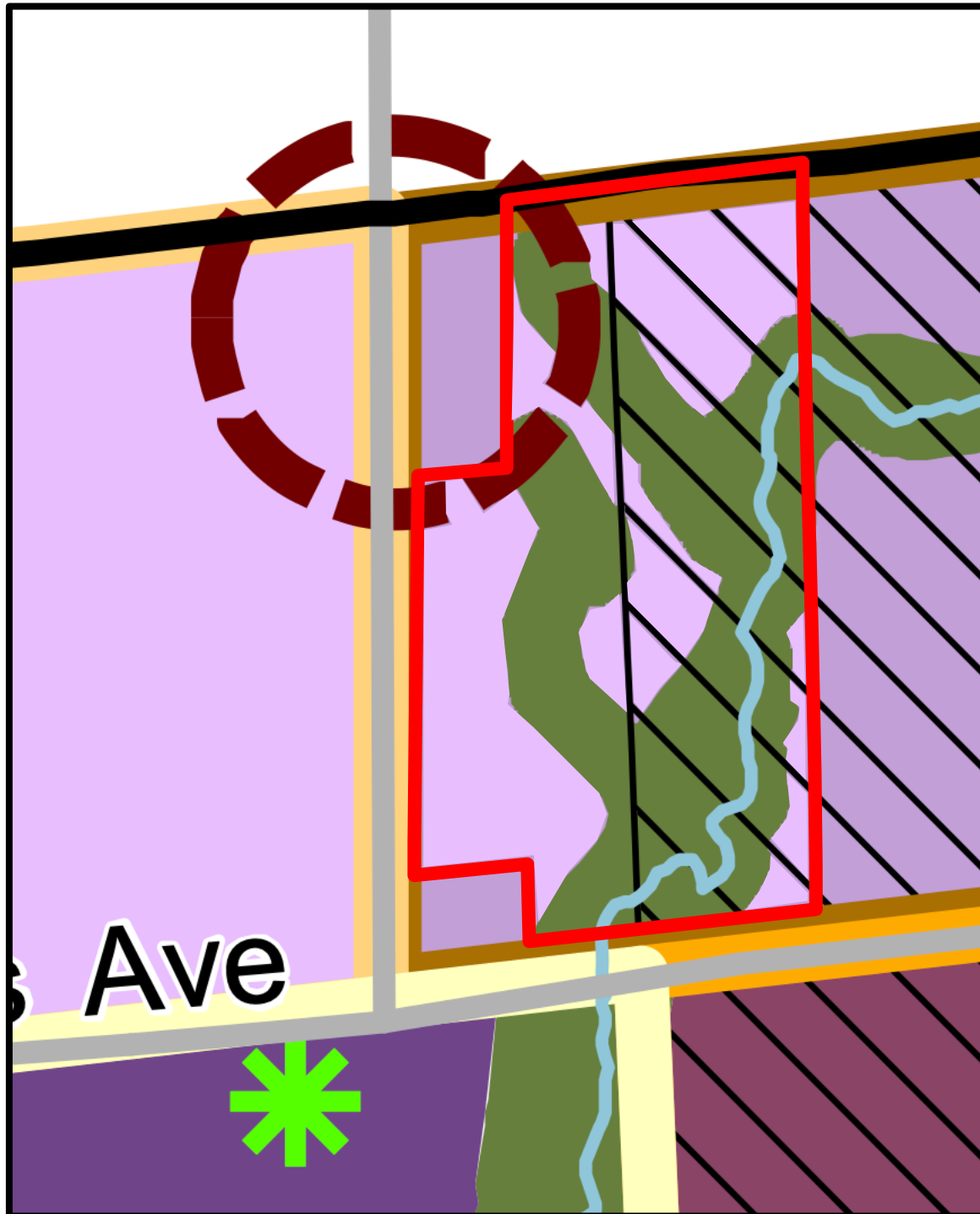
b) Full service hotels including full service hotels with conference and exhibition facilities;

- c) Conference and exhibition facilities;
- d) Take out restaurants provided they are incorporated into larger developments and are ancillary to the primary use;
- e) Retail commercial uses not exceeding individual areas 2,750 square metres in floor space and a total area of up to 10,000 square metres in total retail spaces;
- f) Theatres, cinemas and similar places of entertainment but not an adult entertainment establishment;
- g) Spa, Wellness Centres with associated outdoor pools;
- h) Miniature Golf;
- i) Tree-top climbing and Zip Line Adventure Park;
- j) Drive-through Service Facility
- k) Business and professional offices in free standing buildings;
- l) Industrial uses within wholly enclosed buildings, such as manufacturing, assembling, processing, fabricating, warehousing, wholesaling and distribution facilities;
- m) Research and development facilities;
- n) Printing and associated service establishments;
- o) Industrial malls, containing one or more of the permitted uses in this designation;
- p) Computer, electronics and data processing facilities;
- q) Full-service restaurants;
- r) Two or more full-service restaurants which may be developed in a "campus" development, subject to a comprehensive site development plan in order to achieve well-designed and integrated development; including:
 - Integrated internal circulation and parking areas;
 - coordinated access points, in order to minimize the number of access points to abutting roads;
 - compatible building design and location;
 - complementary landscaping; and,
 - Consistent signage and lighting facilities

That future zoning by-law amendment applications be considered before the completion of the Scoped Sub-Watershed Study for the subject lands.

That future zoning by-law amendment and site plan approval applications be considered before the Phase 2B Employment Area Secondary Plan is completed and is in full force and effect.”

SCHEDULE 1 to OPA No. xx



- | | |
|--|--|
| Phase 1B Employment Area | Existing Rural Residential Concentration |
| Phase 2B Employment Area | Special Policy Area |
| Prestige Industrial Area | HPBATS/GTA West Corridor Protection Area |
| Gateway Area | Town of Halton Hills Boundary |
| Major Parks and Open Space Area | Urban Boundary |
| Private Open Space Area | Waterbody |
| Greenlands | Watercourse |
| Employment Phase 1A | Community Park |
| Employment Phase 1B | Building with Historic Significance |
| Employment Phase 2A (Regional Phasing 2021-2031) | Stormwater Management Pond |
| Employment Phase 2B (Regional Phasing 2021-2031) | Potentially Unstable Slopes |

APPENDIX B

Environmental Site Screening Questionnaire



Planning & Public Works
Tel: 905-825-6000 Fax: 905-825-8822
Toll Free: 1-866-4HALTON (1-866-442-5866)
www.halton.ca

Environmental Site-Screening Questionnaire

Legal/Municipal Address 8079 Eighth Line, Halton Hills Applicant: Gilbach (Halton Hills) Inc.

- Was the subject property ever used for industrial purposes? yes ☒ no ☐ uncertain ☐
- Was the subject property ever used for commercial purposes that may have caused contamination (e.g. gasoline station, dry cleaners, etc.)? yes ☒ no ☐ uncertain ☐
- Has fill ever been placed on the property? yes ☐ no ☐ ☒ uncertain
- Is there any reason to believe that the subject property is potentially contaminated based on historic use of the property or a neighbouring lot located within 100m of the property? yes ☒ no ☐ uncertain ☐
- Are there or were there ever any above-ground or underground storage tanks or waste disposal activities on the property? yes ☒ no ☐ uncertain ☐
- For existing or previous buildings on the property, are there building materials that may be potentially hazardous to human health (i.e. asbestos, lead-based paints, etc.)? yes ☒ no ☐ uncertain ☐
- For agricultural properties, were pesticides or herbicides ever applied to the property? yes ☐ no ☐ ☒ uncertain
- Have any of the buildings on the property been heated by fuel oil? yes ☐ no ☐ ☒ uncertain
- Is the land use changing to a more sensitive land use (e.g. industrial/commercial to residential/institutional)? yes ☒ no ☐ uncertain ☐
Note: Daycare uses are defined in O.Reg.153/04 as institutional.

General Information:

- Have any environmental documents (e.g. Phase I and II Environmental Site Assessments, Records of Site Condition, etc) ever been prepared for the property? If yes, please submit these documents in digital and hardcopy format with your application together with a letter of reliance granting third party reliance on the documents to the Region of Halton. ☒ yes ☐ no ☐

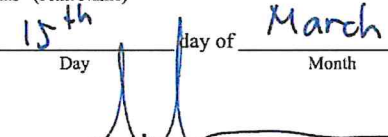
Certification

I, Gilbach (Halton Hills) Inc. am the registered owner of the land that is the subject of this document and to the best of my knowledge, the information provided in this questionnaire is true.

Sworn (or declared) and stamped before me John Corbett
Commissioner of Oaths (Print Name)

in the Toronto City/Town/Municipality, this 15th Day of March 2022 Year


Commissioner of Oaths (Signature)


Registered Owner (Signature)
Arik Auerbach A.S.O.

Regional File #: John Benjamin Corbett

Local Municipal File #: _____

Commissioner
Province of Ontario
Corbett Land Strategies
Expires October 31, 2022

APPENDIX C

Minutes of Settlement on the Proposed Official Plan Amendment No. OPA 47, dated
November 26, 2019

LOCAL PLANNING APPEAL TRIBUNAL

PROCEEDING COMMENCED UNDER subsection 17(24) of the *Planning Act*, R.S.O. 1990, c. P.13, as amended

Appellant:	Hodero Holdings Limited
Appellant:	Ministry of Municipal Affairs
Subject:	Proposed Official Plan Amendment No. OPA 47
Municipality:	Region of Halton
LPAT Case No.:	PL180499
LPAT File No.:	PL180499
LPAT Case Name:	Hodero Holdings Limited, MMAH v. Halton (Region)

MINUTES OF SETTLEMENT

BETWEEN

THE REGIONAL MUNICIPALITY OF HALTON (“**the Region**”)

- and -

THE CORPORATION OF THE TOWN OF HALTON HILLS (“**the Town**”)

- and -

8079 EIGHTH LINE HALTON HILLS INC.

- and -

HODERO HOLDINGS LTD.

WHEREAS 8079 Eighth Line Halton Hills Inc. owns lands located at the north east corner of Steeles Avenue and Eighth Line in the Town of Halton Hills, municipally addressed as 8079 Eighth Line, and legally described in Land Registry Office #20 in PIN 25025-0078 (LT) as PT LT 1 CON 9 ESQ, BEING PART 1, PLAN 20R20358; HALTON HILLS and shown on **Attachment 1** hereto (“**the Hodero Lands**”);

AND WHEREAS 8079 Eighth Line Halton Hills Inc. and Hodero Holdings Ltd. are associated companies (collectively referred to as “**Hodero**”);

AND WHEREAS Hodero Holdings Ltd. has appealed Regional Official Plan Amendment No. 47 (“**ROPA 47**”) to the Local Planning Appeal Tribunal (“**the Tribunal**”);

AND WHEREAS Hodero Holdings Ltd., the Region and the Town are parties to the hearing to be scheduled before the Tribunal and have agreed to resolve Hodero Holdings Ltd.’s appeal of ROPA 47 on the terms and conditions set out in these Minutes of Settlement;

AND WHEREAS Hodero proposes to develop the Hodero Lands for a major employment use and has advised that it intends to seek the required planning approvals as outlined in these Minutes of Settlement;

AND WHEREAS the Hodero development proposal (“**the development proposal**”) is for a hotel, conference centre, waterpark and entertainment facility on the Hodero Lands;

AND WHEREAS the Province of Ontario (“**the Province**”) in 2019 is proposing to restart the GTA West Corridor environmental assessment;

AND WHEREAS Regional Official Plan Amendment No. 43 (“**ROPA 43**”) identifies corridor protection for a GTA West Corridor as well as corridor protection for the Halton-Peel Boundary Area Transportation Study (“**HPBATS**”) which may affect the planning policy framework for the Hodero Lands;

AND WHEREAS the Region, the Town and Hodero (“**the Parties**” and each a “**Party**”) have agreed to request that the Province confirm that the Hodero Lands are not part of the GTA West Corridor protection area;

NOW THEREFORE, in consideration of the mutual covenants herein and other good and valuable consideration and the sum of TWO dollars mutually exchanged between the Parties, the receipt and sufficiency of which consideration is acknowledged by the Parties, the Parties agree as follows:

1. The recitals are true.
2. The Parties shall jointly request that the Tribunal allow Hodero’s appeal of ROPA 47 in part and dismiss the remainder of the appeal, with ROPA 47 being modified as it relates to the Hodero Lands on consent as follows:

“Notwithstanding Section 77(16) of this Plan, the lands municipally known as 8079 Eighth Line and part of Lot 1, Concession IX, former Township of Esquesing, in the Town of Halton Hills may be permitted to develop prior to 2021 in accordance with the other *policies* of this Plan, provided that a Local Official Plan Amendment is approved that:

- a) demonstrates how the lands can be integrated into an *Area-Specific Plan*, including by addressing the appropriate requirements of Section 77(5) of this Plan; and
- b) supports the development of a major employment use.”

The Parties agree that the Region will determine the location of the above policy in the ROP prior to the modification being jointly recommended to the Tribunal for approval.

3. Hodero shall seek approval from the Tribunal for the modification of ROPA 47 as set out in paragraph 2 and Hodero shall call evidence in support of said modification. The Region and the Town shall support such approval at a settlement hearing.
4. It is understood and acknowledged by the Parties that the Region and the Town have specifically agreed to settle the appeal by Hodero Holdings Ltd. on the specific and express understanding that this settlement is conditional and contingent on the acceptance by the Tribunal of the modification as set out in paragraph 2. Should the Tribunal not grant the relief as set out in paragraph 2, then it is agreed that this settlement is null and void.
5. The Parties agree that no Party shall seek costs against any other Party for the proceedings at the Tribunal related to ROPA 47 in LPAT Case No. PL180499.
6. Hodero agrees that all applications in support of its development proposal on the Hodero Lands, including those for the Town Official Plan Amendment, the Zoning By-law Amendment and the Site Plan, shall address comprehensive planning considerations and support the development of a major employment use. It is acknowledged that these Minutes of Settlement in no way predetermine, fetter or otherwise limit Town Council or Regional Council decision-making on such applications, including whether the applications appropriately address the comprehensive planning considerations and whether the development proposal constitutes a major employment use.
7. Hodero agrees to further the development proposal by filing the Town Official Plan Amendment application on or before October 1, 2020, which date may be extended on consent of the Parties. Hodero further acknowledges that the Town Official Plan Amendment must be supported by the range of studies required as part of a complete application, and must address F10.4 of OPA 10, being the phasing policies in the Town's Official Plan. In addition, at minimum, the Town Official Plan Amendment application must be supported by the following studies based on Terms of Reference acceptable to the Town and the Region in order to demonstrate how the comprehensive planning considerations have been addressed, including the integration of the Hodero Lands into an Area-Specific Plan:
 - a) planning justification report that demonstrates, among other things, how section 77(5) of the Regional Official Plan and section D3.5.4.4.3 of the Town Official Plan are met;
 - b) a land use compatibility evaluation addressing existing residential development in the vicinity of the development;
 - c) a commercial needs study based on the development proposal being a major employment generating commercial use;
 - d) scoped subwatershed study;
 - e) servicing report; and

f) traffic study.

8. The Parties acknowledge that Hodero shall bring forward a development proposal that will be integrated with the Town's adopted Premier Gateway Phase 1B Secondary Plan ("LOPA 31A" and "LOPA 31B"), which is pending approval by the Region. The Parties agree that Hodero may rely on existing work carried out by Town for LOPA 31A and LOPA 31B and augment that work as required in support of its development proposal and demonstration of comprehensive planning considerations. Further, the Town and the Region agree to scope the Terms of Reference for the studies referenced in paragraph 7, where appropriate, in recognition of the work completed in these prior Town studies.
9. Hodero agrees that it shall not appeal any approval of LOPA 31A by the Region, unless there are significant modifications by the Region to such approval. It is agreed by Hodero that unless the Town appeals the Region's decision on LOPA 31A that the modifications are deemed to be insignificant, and Hodero will therefore waive any appeal rights it may have had.
10. Hodero agrees that it shall not appeal any approval of LOPA 31B by the Region, unless there are significant modifications by the Region to such approval. It is agreed by Hodero that unless the Town appeals the Region's decision on LOPA 31B that the modifications are deemed to be insignificant, and Hodero will therefore waive any appeal rights it may have had.
11. The Parties acknowledge that the Province through the Ministry of Transportation has resumed Stage 2 of the Greater Toronto Area West Transportation Corridor Route Planning and Environmental Assessment Study. The Hodero Lands are located outside the 2015 GTA West Focused Analysis Area that is in place for the interim while the Province's Project Team updates and completes the route evaluation. The Hodero Lands are also located outside of the Proposed Halton-Peel Freeway Corridor identified conceptually on Exhibit 8-3 of the final report for HPBATS dated May 2010, which final corridor alignment has yet to be determined. As such, the Parties agree to request the Province to confirm that any planning instruments related to the GTA West Corridor will not require the Hodero Lands to be included in the corridor protection area. Should the Province so confirm, the development proposal shall be processed in the usual course, notwithstanding that the Hodero Lands are currently partially identified within the ROPA 43 HPBATS/GTA West Corridor Protection Area. The Region shall, with the support of the Town, seek to modify ROPA 43 accordingly at the Tribunal in LPAT Case No. PL140744.
12. These Minutes of Settlement are conditional upon approval by the Council of the Town and the Region. Should such approval not be given, it is agreed that these Minutes of Settlement are null and void *ab initio* and do not bind any of the Parties to these Minutes of Settlement whatsoever.
13. Should these Minutes of Settlement not be approved as required under the aforementioned clause, the Parties agree that the terms and obligations of these Minutes of Settlement shall not be referenced in the subsequent Tribunal hearing.

14. These Minutes of Settlement shall enure to the benefit of, and be binding upon the Parties and their respective successors and assigns.
15. The Parties hereto agree to execute such further documents and cause the doing of such acts and cause the execution of such further documents that are within their power as any Party may reasonably request be done or executed, in order to give full effect to the provisions of these Minutes of Settlement.
16. These Minutes of Settlement may be executed in multiple counterparts, each of which shall be deemed to be an original, and all of which shall constitute one Minutes of Settlement. The Parties further agree that each Party shall countersign copies of the document in order that each Party has an original Minutes of Settlement executed by all the Parties, and same shall be provided on a timely basis.

IN WITNESS WHEREOF, the Parties have executed these Minutes of Settlement as of the dates indicated below:

**THE REGIONAL MUNICIPALITY
OF HALTON**

November ²⁶~~27~~, 2019

Per: 
Bob Gray, Acting Commissioner, Legislative
and Planning Services and Corporate Counsel

**THE CORPORATION OF THE TOWN OF
HALTON HILLS**

November , 2019

Per: _____
By its solicitors, Thomson, Rogers

8079 EIGHTH LINE HALTON HILLS INC.

November , 2019

Per: _____
Name:
Title:

I have the authority to bind the Corporation.

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**THE REGIONAL MUNICIPALITY
OF HALTON**

November , 2019

Per: _____

Bob Gray, Acting Commissioner, Legislative
and Planning Services and Corporate Counsel

**THE CORPORATION OF THE TOWN OF
HALTON HILLS**

November 26, 2019

Per:  _____
By its solicitors, Thomson, Rogers

8079 EIGHTH LINE HALTON HILLS INC.

November , 2019

Per: _____

Name:

Title:

I have the authority to bind the Corporation.

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15. The Parties hereto agree to execute such further documents and cause the doing of such acts and cause the execution of such further documents that are within their power as any Party may reasonably request be done or executed, in order to give full effect to the provisions of these Minutes of Settlement.
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**THE REGIONAL MUNICIPALITY
OF HALTON**

November , 2019

Per: _____
Bob Gray, Acting Commissioner, Legislative
and Planning Services and Corporate Counsel

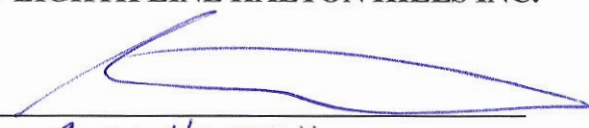
**THE CORPORATION OF THE TOWN OF
HALTON HILLS**

November , 2019

Per: _____
By its solicitors, Thomson, Rogers

8079 EIGHTH LINE HALTON HILLS INC.

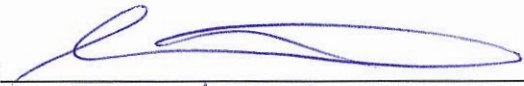
November *26*, 2019

Per:  _____
Name: *GLEN HANSEN*
Title: *PRESIDENT*

I have the authority to bind the Corporation.

HODERO HOLDINGS LTD.

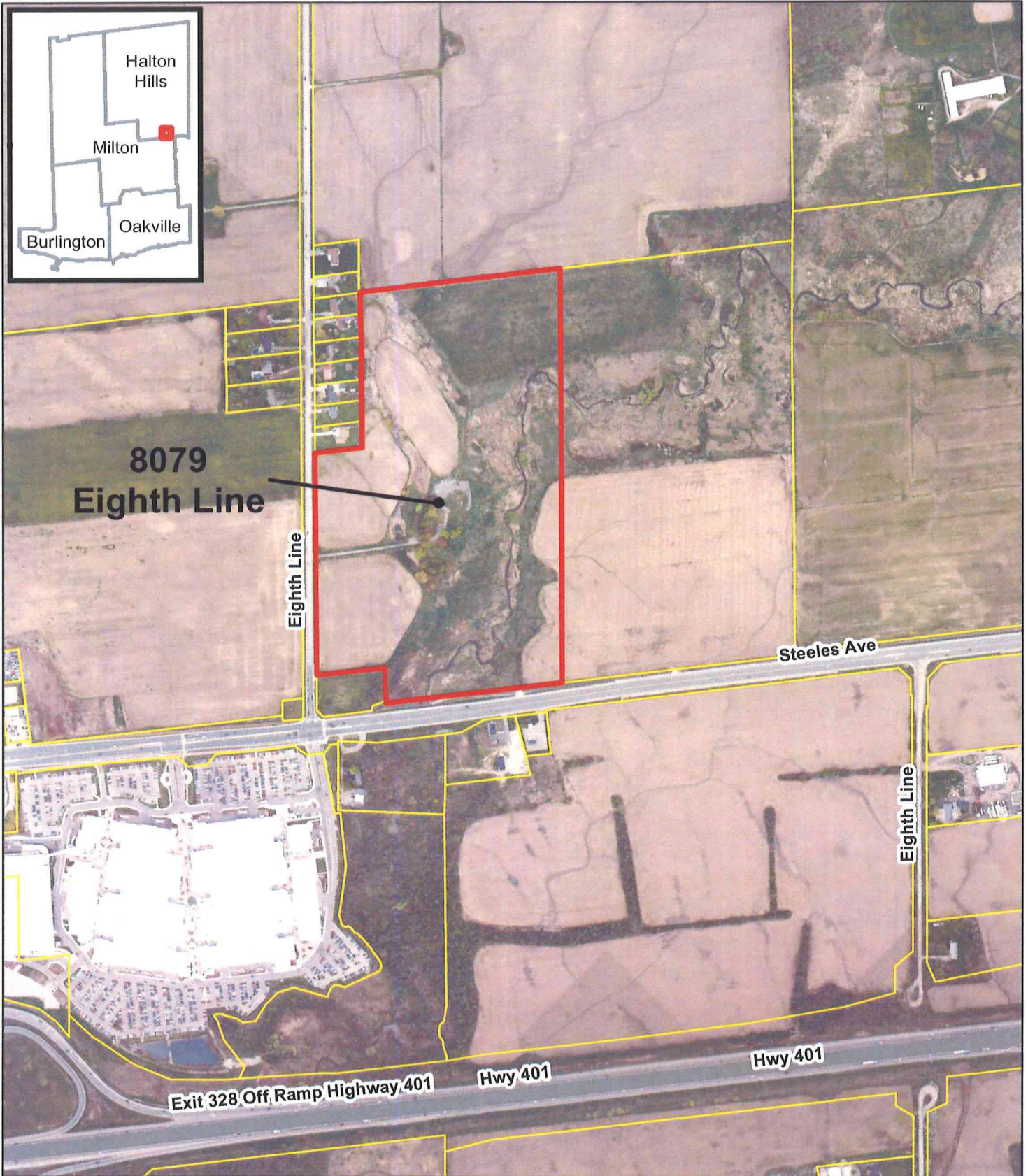
November 26, 2019

Per: 

Name: GLEN HANSEN

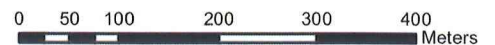
Title: PRESIDENT

I have the authority to bind the Corporation.



8079 Eighth Line

 Hodero Lands
 Parcels



APPENDIX D

Town of Halton Hills Inquiry Meeting / Development Review Committee Meeting Notes
(Pre-Consultation), dated June 10, 2021

INQUIRY MEETING / DEVELOPMENT REVIEW COMMITTEE MEETING NOTES

JUNE 10, 2021

INQUIRY MEETING 8079 EIGHTH LINE

Project Manager/Planner: Jeff Markowiak

For this meeting a planner has been assigned to assist you in identifying any issues or concerns regarding information requirements and processing. In the event you file a formal application(s) a **project manager/planner** from the Planning and Development Department will be assigned as the main contact for managing your application.

How to read these notes

The studies, reports and documentation listed in these pre-consultation notes form the basis for a complete submission necessary for processing any associated development applications. As review of an application proceeds, the need for additional information or studies may arise. Where additional technical information is needed about any of the requirements listed in these notes, please speak with the key contact in each Department or the **project planner**. Town reserves the right to request additional information as required.

Where to find applications for the required planning approvals

Applicants for development approvals can obtain copies of all required development applications by visiting the Development Review section of the Town's website at:

<http://www.haltonhills.ca/planning/developmentReview.php>

Disclaimer

These notes:

- should be interpreted with regard to the specific details of the given proposal and the prevailing legislation, infrastructure planning and policy in place at the time when it was filed;
- are provided in response to an inquiry/proposal;
- are technical in nature, and do not confer approval in whole or in part;
- are to determine the basis for a complete application; and
- are subject to public disclosure upon request.

Pre-consultation notes need to be updated or the update requirement waived by the Commissioner of Planning and Development if they are older than 6 months, in the event of property ownership change, in the event of a revised or different proposal or in any other case where so warranted.

The Town of Halton Hills has a Pre-Consultation By-Law #2008-0092 by way of Staff Report No. PD-2008-0021.

PROPOSAL/APPLICATION	OWNER/APPLICANT
<input type="checkbox"/> Condominium	Owner/Applicant: Gilbach (Halton Hills) Inc. Proposed Site: 8079 Eighth Line Proposal: Obtain Official Plan permissions for an integrated recreational/entertainment development consisting of a water park, hotel, and conference centre (with ancillary uses) as well as additional industrial/non-residential uses.
<input type="checkbox"/> Consent	
<input type="checkbox"/> Minor Variance	
<input checked="" type="checkbox"/> Official Plan Amendment	
<input type="checkbox"/> Site Plan	
<input type="checkbox"/> Subdivision	
<input type="checkbox"/> Zoning By-law Amendment	
<input type="checkbox"/> Other	



TOWN OF

HALTON HILLS*Working Together Working for You!*

PLANNING & DEVELOPMENT – Jeff Markowiak ext 2296 jeffma@haltonhills.ca	
PLANS:	Proposal:
<input checked="" type="checkbox"/> Conceptual Site Plan Drawing	The application seeks to understand what the submission requirements would be for an Official Plan Amendment only for the integrated recreational/entertainment development consisting of a water park, hotel, and conference centre (with ancillary uses). The intent is to obtain Official Plan permissions first and then focus on the Zoning By-law Amendment and Site Plan approval process later, once the final concept for the use is determined. The application also requests to obtain permission for the industrial/non-residential uses envisioned to be permitted on future Prestige Industrial Area designated lands through the Phase 2B Secondary Plan process.
<input type="checkbox"/> Sketch by Surveyor (Land Division)	
<input type="checkbox"/> Legal Survey	
<input checked="" type="checkbox"/> Conceptual Rendering	
REPORTS:	
<input type="checkbox"/> Financial Impact Analysis	These notes are intended to be supplemental to the Pre-consultation notes previously provided following the September 19, 2019, DRC meeting (D00ENQ19.036). These notes only comment on the requirements for an OPA; therefore, they should be read together with the previous set of notes to understand the requirement details for the full proposal.
<input checked="" type="checkbox"/> Planning Justification Report	
<input checked="" type="checkbox"/> Commercial Needs Assessment	
<input type="checkbox"/> Urban Design Brief	
<input type="checkbox"/> Urban Design Guidelines	
<input type="checkbox"/> Source Water Protection	
<input checked="" type="checkbox"/> Public Consultation Strategy (OPA, ZBA, SUB)	
OTHER DOCUMENTS:	
<input checked="" type="checkbox"/> USB with a set of all drawings to scale and reports in PDF format	
<input type="checkbox"/> Other: <ul style="list-style-type: none">• Draft OPA	
Contact the Planning & Development Department for fee information.	Comments: <p>Given the subject property's location and physical separation from the remainder of the Phase 2B Employment Area by Sixteen Mile Creek, Town staff support the filing of a privately initiated Official Plan Amendment for a hotel, conference centre, waterpark and entertainment facility in place of a municipally initiated Secondary Plan, on the basis that the amendment:</p> <ul style="list-style-type: none">• is prepared in accordance with the policies of Section G3.1 of the Town's Official Plan;• demonstrates how the lands can be integrated into an Area Specific Plan, including by addressing the appropriate requirements of Section 77(5) of the Region of Halton Official Plan; and• supports the development of a major employment use. <p>Town staff also does not object to the Applicant seeking to obtain permission for the industrial/non-residential uses envisioned to be permitted on future Prestige Industrial Area designated lands through the Phase 2B Secondary Plan process as part of any OPA application. This is due to the passage of time and that any OPA application would likely reach a Recommendation Report stage in a similar timeframe to Town approval of the Phase 2B Secondary Plan.</p> Submission Requirements: <p><i>Planning Justification Report:</i> Should outline how the proposal conforms to the applicable Provincial, Regional and Town policies. A discussion on how the proposal will address/respond to any land use compatibility concerns</p>

	<p>with the adjacent single detached lots should also be provided.</p> <p><i>Public Consultation Strategy:</i> The Applicant should develop a comprehensive Public Consultation Strategy aimed at involving and engaging with surrounding property owners and the public throughout the development review process. A combination of site signage, newspaper ads, direct notice and a public information centre (PIC) should be considered. This Public Consultation Strategy is to be submitted as part of a complete application and can be included within the Planning Justification Report.</p> <p>Fees: Please note that the Town has adopted new Planning & Development Fees. The new fees can be found on the Town's website: https://www.haltonhills.ca/userfees/.</p> <p>Under the new structure, fees will be calculated for each application as follows:</p> <ul style="list-style-type: none"> • Official Plan Amendment – Base Fee + Variable Fee <p>Please contact Planning & Development prior to submitting any application to confirm the required fee amount. Applications with an incorrect fee may not be accepted at the time of submission.</p>
HERITAGE – Laura Loney ext. 2358 lloney@haltonhills.ca	
<input type="checkbox"/> Heritage Impact Assessment	<p>The property at 8079 Eighth Line North is adjacent to the heritage cemetery at 8021 which is listed on the Town's Heritage Register. A Heritage Impact Assessment is not required at the OPA stage; however, it will be required as part of any Zoning By-law Amendment application for the property.</p>
<input type="checkbox"/> Consultation with Heritage Halton Hills recommended	
<input type="checkbox"/> Other:	
ZONING – Rachel Purdy ext. 2320 rpurdy@haltonhills.ca	
<input type="checkbox"/> Zoning By-law Matrix	
<input type="checkbox"/> Designated Disabled Person Parking	
<input type="checkbox"/> Sign By-law	
<input type="checkbox"/> Other:	
PLANNING & DEVELOPMENT (LEGAL) – Romaine Scott ext. 2344 romaines@haltonhills.ca	
<input type="checkbox"/> Agreement	
<input type="checkbox"/> Transfers	
<input type="checkbox"/> Other: Contact the Legal Coordinator for agreement preparation and related fee information.	
ENGINEERING – Jeff Jelsma ext. 2305 jeffi@haltonhills.ca	
PLANS:	
<input type="checkbox"/> Grading/Drainage Plan	<p>The following documents are required by Development Engineering to complete our review for an Official Plan Amendment application. We would encourage meeting with Town staff and the agencies throughout the process.</p> <ul style="list-style-type: none"> • Sub-watershed Study <ul style="list-style-type: none"> ○ TofR review on-going
<input type="checkbox"/> Site Servicing Plan	
<input type="checkbox"/> Photometrics (Illumination/Lighting Plan)	
<input type="checkbox"/> Sediment and Erosion Control Plan	
REPORTS:	

<input checked="" type="checkbox"/> Functional Servicing Report <input type="checkbox"/> Stormwater Management Report <input type="checkbox"/> Geotechnical/Slope Stability Report <input type="checkbox"/> Noise/Vibration Study <input checked="" type="checkbox"/> Transportation Impact Study <input type="checkbox"/> Water Balance Assessment OTHER DOCUMENTS: <input type="checkbox"/> Cost Estimates - Site Works <input type="checkbox"/> Construction Management Plan <input type="checkbox"/> Salt Management Plan <input type="checkbox"/> Development Agreement for External Works <input type="checkbox"/> License Agreement for External Works <input type="checkbox"/> Entrance Permit <input type="checkbox"/> Excavation Permit <input type="checkbox"/> Site Alteration Permit <input checked="" type="checkbox"/> Other: <ul style="list-style-type: none"> • Sub-watershed Study • Sub-watershed Impact Study 	<ul style="list-style-type: none"> ○ Coordination meeting required with all agencies. • Sub-watershed Impact Study (need to confirm timing) • Functional Servicing Report <ul style="list-style-type: none"> ○ Provide TofR for our review and commenting before commissioning the report ○ Ensure the TofR includes a discussion on Stormwater management, including the sizing of a pond, location of a pond, location of inlet/outlet and what treatment train will be proposed for quality, etc. This may require discussing a few options for each as depending on the proposed uses on-site (e.g. infiltration is not recommended for accessory truck parking areas however enhanced swales within an island may work well for carpark of a waterpark)
TRANSPORTATION – Ivan Drewnitski ext. 2328 jdrewnitski@haltonhills.ca	
PLANS: <input type="checkbox"/> Traffic Signage & Pavement Marking Plan <input type="checkbox"/> AutoTURN Vehicle Swept Path Analysis REPORTS: <input checked="" type="checkbox"/> Transportation Impact Study <input type="checkbox"/> Parking Justification Study (3 hardcopies) OTHER DOCUMENTS: <input type="checkbox"/> Construction Management Plan <input type="checkbox"/> Other: PDF of all studies and electronic submission of all Synchro files	Traffic <p>The Applicant is required to submit a detailed TIS to support the OPA based on what they want to propose at this time. However, at the time of ZBA and Site Plan approval we will require an addendum to the TIS that will be more specific to the development. If too much time has passed an update may be required based on existing traffic conditions.</p> <p>It should be noted that the Town is completing our Eighth Line EA and will be securing the necessary Road Widening and Active Transportation requirements based on the needs indicated in the EA. This will require a minimum of a 35m ROW and also multi-use path on both sides of the road. It is anticipated that the developer will be paying for the full cost of the multi-use path that fronts on their land on the Eighth Line. This is very preliminary as part of an OPA but want to ensure that this message is consistent throughout the development process.</p>
BUILDING SERVICES – Loris Vaccher ext. 2216 lorisv@haltonhills.ca	
PLANS: <input type="checkbox"/> Demolition Plan REPORTS: <input type="checkbox"/> Geotechnical/Slope Stability Report OTHER DOCUMENTS: <input type="checkbox"/> Ontario Building Code Data Matrix <input type="checkbox"/> Building Permit <input type="checkbox"/> Change of Use Permit <input type="checkbox"/> Demolition Permit <input type="checkbox"/> Other: Contact the Building Section regarding building permit fee information.	

ECONOMIC DEVELOPMENT, INNOVATION AND CULTURE – Tony Boutassis ext. 2338 tonyb@haltonhills.ca	
PLANS:	
<input type="checkbox"/> Site Plan Drawing	
<input type="checkbox"/> Elevations	
REPORTS:	
<input type="checkbox"/> Financial Impact Analysis	
<input type="checkbox"/> Planning Justification Report	
<input type="checkbox"/> Market Impact Analysis	
OTHER DOCUMENTS:	
<input type="checkbox"/> Ontario Building Code Data Matrix	
<input type="checkbox"/> Other	
FIRE SERVICES – Jason Blackmere ext. 2139 jblackmere@haltonhills.ca	
<input type="checkbox"/> Other:	
RECREATION & PARKS – Jude Gaboury ext. 2280 jgaboury@haltonhills.ca	
PLANS:	
<input type="checkbox"/> Landscape Plan	
<input type="checkbox"/> Tree Inventory/Tree Protection Plan	
REPORTS:	
<input type="checkbox"/> Tree Preservation Report	
OTHER DOCUMENTS:	
<input type="checkbox"/> Cash-in-lieu of Parkland – By-law #2002-0152 Creation of new lots always triggers cash in lieu of parkland costs owing by the proponent	
<input type="checkbox"/> Landscape Buffer	
<input type="checkbox"/> Cost Estimates - Landscape	
<input type="checkbox"/> Other:	
GREEN BUILDING STANDARDS – Michael Dean ext. 2365 mdean@haltonhills.ca	
<input type="checkbox"/> Green Development Standards Checklist	<p>The Town of Halton Hills Green Development Standards v3 will apply at the ZBA and Site Plan stage. All submissions must achieve a minimum of 20 points by selecting items from the checklist. Documentation necessary under each section is outlined in the checklist.</p> <p>The updated checklist will be available shortly on the Town of Halton Hills Climate Change website [here].</p> <p>For further information, or to receive a copy of the checklist, please contact Michael Dean, Senior Climate Change & Energy Planner (mdean@haltonhills.ca)</p>
<input type="checkbox"/> Other:	
FINANCE (Development Charges) – Scott O'Donnell ext. 2226 sodonnell@haltonhills.ca	
<input type="checkbox"/> Development Charges	<p>Development Charges (DC's) will be applicable at the non-residential, non-industrial (commercial) rate multiplied by the Gross Floor Area per the Town's By-law, the Development Charges Act (DCA) and Schedule B. The DC's are payable at time of building permit issuance.</p>
<input type="checkbox"/> Other:	
<p>Collection of Development Charges</p> <p>The Town collects development charges on behalf of Halton Region, the local school boards, and the Town of Halton Hills. Development Charges must be paid when the building permit is issued.</p>	

Calculation of Applicable Development Charges

Development Charges fall into two broad development categories: (1) Residential and (2) Non-residential. Residential Development Charges are based on the type of residential dwelling unit (e.g. single family dwelling, townhouse, apartment units). Non-Residential development is calculated on the total floor area (m²) of the converted / new building.

Indexing of Development Charges

Municipalities are allowed to index their Development Charges if this provision is included in their by-law. Both the Town of Halton Hills and Halton Region periodically index their Development Charges. Contact the Town of Halton Hills Corporate Services for more information and scheduled dates. Note – the indexing dates can trigger higher development charges and any prospective development should factor these costs and scheduled rate increases into their development plans.

Credits

If a building on a property has been demolished or destroyed by fire, the Town and the Region may provide a credit against development charges payable, provided a demolition permit has been issued and a building permit for redevelopment is issued within 5 years from demolition permit issuance. The school boards have a two year time period for residential redevelopment and five years for non-residential redevelopment from demolition permit issuance. Please contact Town staff as soon as possible to determine if any credits are applicable.

Conversion credits shall be applied against the Town's and the Region's development charges payable when an existing building or land is converted from one principal use to another principal use on the same land.

Exemptions

Certain types of developments are exempt from Town Development Charges including municipally-owned lands, agricultural structures, public hospitals, lands owned by religious organizations, and boards of education. Contact the Town for other exemptions that may be available.

Deferral of Regional and Town of Halton Hills Development Charges (Non-Residential only)

Both the Region of Halton and the Town of Halton Hills may defer the payment of Development Charges for a period of up to 10 years. Payments are made annually. The Town's rate of interest is determined at the time of the application and is based on the borrowing rate of the Municipality plus 1% and fixed for the term of the agreement. Applicants must apply in writing and the agreement will be registered on title with all costs borne by the applicant. Please contact the Town and the Region for eligibility criteria.

Current Development Charges

The attached chart provides in detail the amount of Development Charges that may be applicable. This chart should be used as a guide only as rates are subject to change. You are encouraged to contact the Finance department at the extension shown above.

Despite the information provided above applicants are strongly urged to contact the Town to review the specifics of their development proposals to avoid misunderstandings later on in the development review process.

FINANCE (Public Sector Accounting Board) - Amy Prueter ext. 2959 amyp@haltonhills.ca

As of January 1, 2009 Federal government legislation requires that municipalities report the value of:

- any lands dedicated to the Town; or
- works undertaken on existing Town owned land or lands dedicated in the development review process.

Where applicable:

- the value of all improvements to existing Town owned or dedicated lands must be communicated to the Corporate Services/Finance Department before any securities are released or lands assumed

HALTON HILLS HYDRO INC. – Christopher Hale 519-853-3700 ext. 222 chale@haltonhillshydro.com / Natasha Roknic 519-853-3700 ext. 216 / natashar@haltonhillshydro.com

If your proposed development results in changes:

- that require alterations to existing



<p>servicing of the subject property, or</p> <ul style="list-style-type: none"> • your development proposal changes: from that submitted as part of the pre-consultation application, or • after you have applied for a development approval either as a result of a change you have initiated or in response to comments provided by commenting agencies and/or Town Departments your existing or proposed hydro servicing connections may require changes that carry additional costs. Please confirm with Halton Hills Hydro Inc (HHHI). <p>HHHI must be contacted for an Electrical Service Layout if a new service or upgrade to an existing service is required; including metering changes (Ext. 213).</p> <p>Any costs due to changes required of HHHI's distribution system (i.e. moving poles to accommodate lane ways, driveways and parking lots, etc.) will be borne by the applicant.</p> <p>If the application is for a subdivision, the applicant is required to complete the necessary requirements to obtain a Registered Subdivision Agreement with HHHI (Ext. 213).</p>	
CONSERVATION AUTHORITIES	
REPORTS:	CREDIT VALLEY CONSERVATION
<input checked="" type="checkbox"/> Geodetic Elevations	Annie Li 905-670-1615 ext. 380
<input type="checkbox"/> Staking of Drip Line	Credit Valley Conservation has no comments at this time.
<input checked="" type="checkbox"/> Staking of Top of Bank	
<input checked="" type="checkbox"/> Functional Servicing Report	CONSERVATION HALTON
<input checked="" type="checkbox"/> Stormwater Management Report	Emma DeFields 905-336-1158 ext. 2335
<input checked="" type="checkbox"/> Geotechnical/Slope Stability Study	A Scoped Subwatershed Study (SWS) that is intended to provide the level of detail of an SWS as well as the next level study (Subwatershed Impact Study - SIS) is currently being prepared, titled: "Scoped Subwatershed Study Northeast Corner Steeles Avenue and 8 th Line". This study must be completed to the satisfaction of all agencies in accordance with the approved Terms of Reference (Jan. 10, 2020). The study is required in support of the proposed OPA and future planning applications for this site.
<input checked="" type="checkbox"/> Hydrogeological Study	
<input checked="" type="checkbox"/> Floodplain Analysis Study	
<input checked="" type="checkbox"/> Meander Belt Study/Erosion Assessment	
<input checked="" type="checkbox"/> Environmental Impact Study	
OTHER DOCUMENTS:	
<input checked="" type="checkbox"/> CH Development Permit is required under (Ontario Regulation No. 160/06)	
<input checked="" type="checkbox"/> USB with a set of all drawings to scale and reports in PDF format	
<input checked="" type="checkbox"/> Property is Regulated by the <i>Development Interference with Wetlands, and Alterations to Shorelines and Watercourses (Ontario Regulation No. 160/06)</i>	Given the Town's Premier Gateway Phase 2B Scoped SWS is also ongoing for this area, coordination with the Town to ensure the studies are consistent, and ideally to avoid duplication of efforts, is recommended.
<input checked="" type="checkbox"/> Other:	
• Subwatershed Study (SWS) [including	Development on the subject lands is to proceed in accordance with the applicable approved Scoped SWS for this area.

Subwatershed Impact Study (SIS)], as per Terms of Reference agreed upon by all review agencies.

*Note, many of the Reports listed above may be covered through the SWS/SIS.

Ontario Regulation 162/06

Pursuant to Ontario Regulation 162/06, CH regulates all watercourses, valleylands, wetlands, Lake Ontario and Hamilton Harbour shoreline and hazardous lands, as well as lands adjacent to these features. The subject property is traversed by tributaries of Sixteen Mile Creek and contains the flooding and erosion hazards associated with those watercourses. The property also contains wetlands. CH regulates a distance of 15 metres from the greater of the limit of the flooding or erosion hazards; 120 metres from the limit of Provincially Significant Wetlands (PSWs) and wetlands greater than 2 hectares in size; and 30 metres from the limit of all other wetlands. Permission is required from CH prior to undertaking any development within CH's regulated area and works must meet CH's *Policies and Guidelines for the Administration of Ontario Regulation 162/06* (<https://conservationhalton.ca/policies-and-guidelines>).

Delineation and assessment of regulated features and hazards is required through the SIS. As per CH Policies, new development is to be outside of the 15m allowances from the flooding and erosion hazards. Development may be located between 30-120m of PSWs and wetlands greater than 2 hectares in size, and between 15-30m of other wetlands, subject to demonstrating the development will have no negative impact on the hydrologic function of the wetlands, and subject to meeting all other applicable agency policies. Be advised that greater setbacks may be required as per municipal policies and based on the outcome of the Scoped SWS.

Memorandum of Understanding (MOU)

CH will review the Scoped SWS and application as per our MOU regarding matters pertaining to Natural Hazards, the Natural Heritage System (NHS) and Stormwater Management (SWM).

Planning Recommendations

Staff will recommend that lands within the regulated area and NHS be planted and restored based on CH's Landscaping and Tree Preservation Guidelines, and that those lands be designated (and zoned) for protection and placed into public ownership.

Submission

All supporting site plan, landscaping/restoration and engineering drawings should be circulated to CH for review. It is understood that drawings may be conceptual at the OPA stage; however sufficient detail must be provided to ensure feasibility of the proposed OPA. Further details will be needed at future planning stages. CH's fees based on the applicable fee schedule at the time will apply. Please contact CH to confirm fees prior to submission.

HALTON REGION – Shelley Partridge 905-825-6000 ext. 7180	
REPORTS:	Background/Description of the Proposal:
<input checked="" type="checkbox"/> Environmental Site-Screening Questionnaire <input type="checkbox"/> Environmental Impact Study <input type="checkbox"/> Environmental Site and/or Risk Assessment <input type="checkbox"/> Subwatershed Impact Study <input type="checkbox"/> Agricultural Impact Study <input type="checkbox"/> Well Survey and Monitoring Report <input type="checkbox"/> Water Usage and Sanitary Discharge Report <input type="checkbox"/> Aggregate Resource Assessment <input checked="" type="checkbox"/> Archaeological Assessment(could wait for zoning stage, but staff encourage this to be undertaken at the OPA stage to prevent possible future delays) <input type="checkbox"/> Functional Servicing Report <input type="checkbox"/> Geotechnical/Slope Stability Report <input type="checkbox"/> Noise/Vibration Study <input checked="" type="checkbox"/> Transportation Impact Study based on approved Terms of Reference <input type="checkbox"/> Hydrogeological Study <input type="checkbox"/> Grading and Drainage Plan <input type="checkbox"/> Tree Inventory Plan <input type="checkbox"/> Tree Preservation Report <input type="checkbox"/> Servicing Agreement <input type="checkbox"/> Service Permit <input type="checkbox"/> Subdivision Agreement	<ul style="list-style-type: none"> landowners are considering only moving forward with an Official Plan Amendment at this time, to allow for an integrated recreational/entertainment development consisting of a waterpark, hotel and conference centre as well as any land use permissions the Town envisions to be supported through the Phase 2B Secondary Plan process through ROPA 47 and the associated Minutes of Settlement, specific policies are in place for this property, allowing development to occur in advance of an approved Secondary Plan, subject to the requirements outlined in the Minutes of Settlement the new estimated timing for construction on this site is in 2023, at the earliest
OTHER DOCUMENTS:	Comments:
<input checked="" type="checkbox"/> USB with a set of all drawings to scale and reports in PDF format <input checked="" type="checkbox"/> Other: <ul style="list-style-type: none"> Draft Official Plan Amendment Planning Justification Report Subwatershed Study/SIS, based on approved Terms of Reference Comprehensive Servicing Study, based on approved Terms of Reference Any requirements agreed to in the ROPA 47 settlement 	<ul style="list-style-type: none"> the subject lands are designated partially as Urban Area with an Employment Area overlay and partially as Regional Natural Heritage System in the 2009 Regional Official Plan (ROP) at present, the lands partially fall within the GTA West and HPBATS Corridor Protection Area additionally, the lands contain or are adjacent to: <ul style="list-style-type: none"> features identified as Key Features, as illustrated on Map 1G of the 2009 ROP, including: <ul style="list-style-type: none"> potential valleylands; potential habitat of endangered or threatened species; potential significant wildlife habitat; and potential fish habitat areas identified as enhancement area, linkage and buffer, as illustrated on Map 1G of the 2009 ROP; and floodplain, watercourse and slope hazard regulated by Conservation Halton (CH) the range of permitted uses and creation of lots within the Urban Area are to be in accordance with Local Official Plans and Zoning By-laws, as outlined in Section 76 of the ROP, but all development is subject to the policies of the Regional Official Plan the objectives of the Employment Areas are to ensure sufficient land for employment uses and provide opportunities for a fully-diversified economic base - Section 77.4 of the ROP prohibits residential and other non-employment uses in the Employment Areas the required Planning Justification report will need to outline how the proposed uses conform with all applicable Regional Official Plan policies and will need to include all requirements from the ROPA 47 appeal settlement, such as demonstrating how the lands can be integrated into an Area-Specific Plan, addressing the requirements of Section 77(5) of the ROP, addressing Regional land use compatibility policies and guidelines,

outlining how the proposed uses support the development of a major employment use and how the supporting studies address comprehensive planning considerations

- section 89(3) of the ROP requires all development within the Urban Area to be on full municipal services, unless otherwise exempt by other policies of this Plan – servicing comments are provided below
- section 147(17) of the ROP requires that prior to the Region or Local Municipality considering a development application, the proponent identify whether there is any potential for soils on the site to be contaminated - the applicant is required to complete an Environmental Site Screening Questionnaire (attached) - if any Environmental Site Assessments are required as a result of this questionnaire, they need to be done to O.Reg. 153/04 standards and the author of the report(s) need to provide third party reliance to the Region of Halton
- Section 167(6) of the ROP requires that prior to development occurring in or near areas of archaeological potential, assessment and mitigation activities be undertaken in accordance with Provincial requirements and the Regional Archaeological Management Plan - the subject property has high potential for archaeological resources – an archaeological assessment needs to be completed and provincially approved prior to any site alteration on the subject property – while this study could wait until the zoning stage, Regional staff encourage that this work be undertaken as early in the planning application process as possible, as other properties along the Steeles Avenue corridor have needed to undertake Stage 4 level assessments and it can take time to get provincial approvals

Natural Heritage:

- Regional staff continue to be engaged in the review of submissions associated with the ongoing Subwatershed work, meant to be a hybrid between a Subwatershed Study and Environmental Impact Assessment, ensuring the Regional Natural Heritage System policies of the ROP (Section 118) are followed as well as the direction of the ROPA 47 minutes of settlement
- While the above study will provide direction for the future development, it should be expected that an update to this work (such as an Environmental Implementation Report) may be required through future planning processes
- CH staff provides environmental advisory and technical review services to the Region in relation to the protection of certain natural heritage features and areas including wetlands and significant wildlife habitat and natural hazard land management. Technical comments provided by CH on any submitted materials will need to

be addressed by the applicant.

Source Water Protection:

- The subject property falls within the jurisdiction of the Halton-Hamilton Source Protection Plan (SPP) and the property is located in a Significant Groundwater Recharge Area. The property is not located within a Wellhead Protection Area (WHPA) or an Issue Contributing Area (ICA), so there are no source protection policies that apply to this application and no Section 59 notice is required.

Regional Servicing:

- A 300mm diameter watermain extends approximately 50m north along Eighth Line from the intersection of Steeles Avenue.
- A 750mm diameter watermain is located adjacent to the property along Steeles Avenue (Regional Road #8). Pipe diameters of 300mm or less are distribution mains, pipe diameters of 400mm or greater are considered transmission mains. Water service connections to a transmission main are not permitted.
- There is a Regional Municipality of Halton Project (PR-3126) that has implications on the sanitary wastewater sewer servicing of this property. A detailed analysis of the works as well as coordination regarding the timing of the works for PR-3126 are required before commenting on availability of sanitary wastewater sewer servicing for the site. Regional staff ask that the applicant coordinate with Regional staff with respect to the servicing plans for the proposed development to ensure there are no impacts to the future Regional infrastructure projects.
- The applicant is to review the Water and Wastewater Area Servicing Plan (ASP) for the Premier Gateway Phase 1B Employment Area in the Town of Halton Hills, Final Report as prepared by GM BluePlan, dated June 2019 to reference how the subject lands may be serviced, that follows the direction of the ASP.
- A Comprehensive Servicing Study is required - this study will involve a more detailed analysis than a Functional Servicing Report (FSR) as outlined in the Region of Halton's Development Engineering Review Manual (DERM). The study should provide for a full modelling analysis of any downstream capacity constraints regarding the impacts that the design of the development will have on the sanitary sewer system, impacts on treatment plant and pump station capacity, as well as the incorporation of and coordination of Regional Capital project PR-3126 works. The Study is to be completed to the satisfaction of the Region of Halton's Development Project Manager. The additional residential properties to the north of the site that align with the frontage of the site are to be included in this study.

- Any system upgrades or extensions to water or wastewater services that will be required to service the proposed development will be at the expense of the owner and will require entering into a Servicing Agreement with the Region of Halton, MECP approvals as well as a Services Permit.
- Halton Region policies do not permit services to cross lot lines. Any existing water or wastewater services that must be abandoned will be required to be disconnected at the respective mains by the owner and at the cost of the owner.
- All stormwater flows are to be managed by onsite controls and flows are not to be directed onto Regional Roads.
- The Owner shall agree that pre and post development stormwater flows from this site to the existing drainage system on Steeles Avenue (Regional Road 8) are maintained both during and after construction, such that there are no adverse impacts to the existing system on Steeles Avenue, to the satisfaction of Halton Region's Development Project Manager.
- The Owner is required to fund and undertake all infrastructure works required for stormwater drainage improvements and upgrades to Steeles Avenue that are required to accommodate any post development stormwater flows that are generated from this development. All costs for any drainage improvements are to include, design, construction and implementation for these upgrades.
- For developments adjacent to or within the vicinity of a Regional Road, the design of storm sewer systems and stormwater management ponds to accommodate storm flows from the Regional Road are to be at no cost to the Region. At no time shall the Region contribute to the cost of land required to construct a stormwater management pond or the oversizing of the storm sewer service to accommodate regional or municipal flows.
- For parcels adjacent to Eighth Line, stormwater flows must not be directed to the Regional Road (Steeles Avenue).
- The applicant shall comply with the Region's current construction and design standards as stated in the Region's Development Engineering Review Manual, Region of Halton Design Criteria, Contract Specifications and Standard Drawings, Sewer Discharge By-Law 02-03, Multi-unit Servicing Policy as set out in Report PPW01-96 and the By-Law Respecting the Prevention of Backflow Into the Water System as set out in By-Law 157-05 and Drinking Water System By-law 71-19 as required.
- The Owner should be aware that there may not be sufficient water capacity to accommodate this development and that additional capacity may not be available within the term of the application approval and that granting of site plan approval does not imply a

guarantee by the Region to service this development within the term of the site plan approval.

- Any works to be completed by the Owner shall be supervised during their construction by a licensed Professional Engineer of the Province of Ontario with all professional engineering fees paid by the Owner. The Owner's engineer must provide competent full time inspection staff on site during construction activities to obtain the required "as constructed" field information, and to ensure compliance with the approved drawings and Halton Region's Current Construction and Design Standards.
- That prior to final approval, the owner obtain water and wastewater servicing permits from Halton, pay all the necessary fees associated with the permits and meet all of the service permit requirements including the installation of all water meters, to the satisfaction of Halton's Development Project Manager.

Regional Transportation:

- The applicant should be aware of ongoing studies and plans in the area, for which transportation analysis has or is being undertaken:
 - Eighth Line Municipal Class EA (MCEA) from Steeles Avenue (Regional Road 8) to Maple Avenue
 - Vision Georgetown Secondary Plan
 - Premier Gateway Secondary Plan (Phase 1B and 2B)
- It should be noted that a comprehensive Transportation Study was completed to support the Premier Gateway Secondary Plan. The Premier Gateway Secondary Plan Transportation Study identified the need for capacity improvements at the intersection of Eighth Line and Steeles Avenue, which would be determined through separate study. Please note this is a constrained intersection due to two cemeteries on the north west and north east quadrants.
- The Premier Gateway Secondary Plan Transportation Study also identified capacity constraints at the Steeles Avenue and Trafalgar Road (Regional Road 3) intersection in the ultimate 6 lane scenario. The westbound left turn movement at the Steeles Avenue and Trafalgar Road intersection in particular is expected to have limited capacity available.
- The lands identified as part of this potential development were not considered in the transportation studies undertaken to support the above-noted studies and plans. As such, the demands generated by the potential development would be in addition to the demands identified in the transportation studies.
- Through the Region's Transportation Master Plan (TMP-2011), the Region has identified the widening of

Steeles Avenue (4 to 6 lanes) from Trafalgar Road to Winston Churchill Boulevard. The Region's Roads Capital Budget (2018-2031) currently identifies 'start of construction' in 2028. No other specific timeline is available. Prior to construction, both a Municipal Class Environmental Assessment (MCEA) study and a Detail Design project will be planned and conducted, neither of which have been initiated to date.

- A Transportation Impact Study (TIS) should be completed as early in the process as possible. The TIS must be completed by a qualified Transportation consultant for the proposed development. The study must be completed as per Halton's Traffic Impact Study Guidelines. The final study, its assumptions and recommendations must be to the satisfaction of Transportation Planning and approved by Halton Region. The TIS Guidelines are available on-line at <https://www.halton.ca/Repository/Transportation-Impact-Study-Guidelines>.
- Any permitted accesses and/or required road improvements (traffic signals, turn lanes, access construction, illumination, etc.,) for the development will be determined upon the review and approval of a Traffic Impact Study.
- A Scope of Work for the TIS is required for review and approval prior to the start of the study and should be seen as a comprehensive evaluation that builds upon work already undertaken (as outlined above).
- Although not required as part of the Official Plan Amendment process, the following is being provided for information with respect to the future land dedication requirements. The applicant will be required to dedicate any necessary lands to accommodate the widest of the three (3) right-of-way requirements noted below, depending on when the proposed development moves forward:
 - Official Plan/Transportation Master Plan Right-of-Way Requirements – any lands within 23.5m (77-ft) of the centre line of the original 66ft (20m) right-of-way of Steeles Avenue (Regional Road 8) that are part of the subject property shall be dedicated to the Regional Municipality of Halton for the purpose of road right-of-way widening and future road improvements.
 - Municipal Class Environmental Assessment Study/Environmental Study Report (Transportation Planning) Right-of-Way Requirements – Steeles Avenue from Trafalgar Road to Winston Churchill Boulevard – any additional lands that are part of the subject property and have been identified as required for the future widening of Steeles Avenue, as may be identified in the Steeles Avenue from Trafalgar Road to Winston Churchill Boulevard Municipal Class Environmental Assessment Study/Environmental Study Report, shall be

	<p>dedicated to the Regional Municipality of Halton for the purpose of road right-of-way widening and future road improvements.</p> <ul style="list-style-type: none"> ○ Detail Design Project (Engineering & Construction) Right-of-Way Requirements – Steeles Avenue Widening – any additional lands that are part of the subject property and may be identified as required for the future widening and of Steeles Avenue, shall be dedicated to the Regional Municipality of Halton for the purpose of road right-of-way widening and future road improvements. • All lands to be dedicated to Halton Region shall be dedicated with clear title (free and clear of encumbrances) and a Certificate of title shall be provided, in a form satisfactory to the Director of Legal Services or his/her designate. <p>Regional Economic Development Advisory Note:</p> <ul style="list-style-type: none"> • Pursuant to the 2019-2022 Halton Region Strategic Business Plan, Economic Development launched an Employment Concierge function in early 2020 to assist and facilitate non-residential development and to support businesses interested in locating or expanding in Halton. • The Halton Employment Land Concierge is a complimentary service offered by Economic Development, working closely with other Regional departments, which assist industrial, commercial and institutional (ICI) development applications with: <ul style="list-style-type: none"> ○ facilitating internal discussions at the Region during the development process; ○ liaising between internal departments and other relevant government agencies; and ○ providing guidance on strategic partnerships with industry contacts and local businesses. • The function is among Economic Development's range of service offerings to support investment, development and the broader business community in Halton that includes entrepreneurship, small business support and export assistance. • For more information, please visit https://www.halton.ca/For-Business/Invest-Halton/Employment-Land-Concierge • Contact: Christopher James, Economic Development Officer, E-mail: Christopher.James@halton.ca or Phone: (905) 825-6000 ext. 7828 <p>Required Studies:</p> <ul style="list-style-type: none"> • Application Form • Regional Review Fee • Draft Official Plan Amendment • Planning Justification Report • Environmental Site Screening Questionnaire (ESSQ) • Archaeological Assessment (could wait for zoning
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	<p>stage, but staff encourage this to be undertaken at the OPA stage to prevent possible future delays)</p> <ul style="list-style-type: none"> • Subwatershed Study/SIS, based on approved Terms of Reference • Comprehensive Servicing Study, based on approved Terms of Reference • Transportation Impact Study, based on approved Terms of Reference • Any requirements agreed to in the ROPA 47 settlement • Full Digital Submission
MINISTRY OF TRANSPORTATION – Mario Panza mario.panza@ontario.ca; Graham Routledge 416-235-4256	
	<p>For your information, and to ensure that you are fully prepared as you move forward with this development proposal, please be advised that this is within the MTO's permit control area, and as such, MTO permits are required prior to any construction activities taking place on the site. Further to this, in order to obtain permits, the MTO will need to review and approve a Traffic Impact Study to ensure that any impacts to highway operations or safety concerns are addressed and mitigated.</p> <p>At the appropriate stage when a Stormwater Management Report is submitted, MTO will need to review the document to ensure that any impacts to the highway system are addressed and mitigated.</p>

RESIDENTIAL DEVELOPMENT CHARGES BY TYPE OF UNIT

NON-RESIDENTIAL DEVELOPMENT (Note 4)

Non-Residential Charges Applicable Per Square Foot

Non-Residential Charges Applicable Per Square Metre

NOTES:

- ¹ Indexing in accordance with the Statistics Canada Quarterly, Construction Price Statistics (Table 18-10-0135-01 - formerly Table 327-0043), Town indexes annually on April 1st.

24. Attorney Fees and General Disposal Fees per By-laws 78-12 & 38-17), 36-17, 37-17

- 3 The fees for Special Care/Special Needs/Accessory Units are the total of the applicable charges per unit plus the applicable charges per gross floor area.
4
5 Contact Halton Region to determine applicable payment schedule
6 Contact Town of Halton Hills for appropriate Development Charge fees
7 Effective July 4, 2020
8 Effective July 4, 2020
9 Recovery DC's are not indexed under by-law 37-17. By-law 37-17 applies to lands identified as Recovery DC Area (2012-2021) on Schedule 'A' where such

servicing allocation under a Future Allocation Program

FOR ADDITIONAL DEVELOPMENT CHARGES INFORMATION PLEASE CONTACT:

Town of Halton Hills
 Region of Halton
 Public and Separate Board of Education

Ethan Sargeant
 Development Officer
 Branko Vidovic

905-873-2600 Ext. 2982 - esargeant@haltonhills.ca
 905-925-6000 or 1-866-442-5866 Ext. 7290 - developmentcharges@halton.ca
 905-632-6314 Ext. 107 - VidovicB@hcdsb.org

Note: A Front-ending Recovery Payment applies to Regional residential development in addition to development charges noted herein.

For more information regarding the Regional Front-Ending Recovery Payment, please contact the Region. Inquiries should be directed to either Paula Kobl at 905-925-6000, ext. 7184 or Katherine Fleet at 905-925-6000, ext. 7193.

<https://www.halton.ca/The-Region/Finance-and-Transparency/Financing-Growth/Development-Charges-Front-ending-Recovery-Payment>

APPENDIX E

Scoped Sub-Watershed Study Terms of Reference
Northeast Corner of Steeles Avenue and Eighth Line
Town of Halton Hills

January 10, 2020

Mr. Jeff Markowiak, MCIP, RPP
Manager of Development Review
Planning & Sustainability
Town of Halton Hills
1 Halton Hills Drive
Halton Hills, ON
L7G 5G2



Dear Mr. Markowiak:

**Re: Scoped Subwatershed Study Terms of Reference – Final Revised
 Northeast Corner Steeles Avenue and Eighth Line
 Town of Halton Hills**

Further to the Scoped Subwatershed Study (Scoped SWS) Terms of Reference (ToR) dated June 5 and November 8, 2019, for the lands at the northeast corner of Steeles Avenue and Eighth Line in the Town of Halton Hills, please find enclosed a Final Revised Scoped SWS ToR, dated January 10, 2020. This revised ToR includes changes as requested by the agencies in their letters dated:

- Town of Halton Hills (emails July 19, October 8, November 21 and November 29, 2019);
- Conservation Halton (letters September 24 and December 16, 2019, emails October 4, October 25 and November 1, 2019);
- Region of Halton (letters September 24 and December 5, 2019, email November 5, 2019); and,
- Town, CH and Region at October 10, 2019 Technical Agency Committee meeting (referred to as SWTAC).

For ease of reference, a comment/response matrix is enclosed that documents comments received, the Study Team's response and the location within the revised Scoped SWS ToR (if appropriate) where changes can be found. Those rows shaded in green represent comments that agency staff have previously indicated as being addressed and no further action was required as part of this revision.

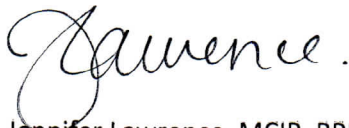
In addition, a tracked changes version of the Phase 1B SWS ToR has been provided digitally. The purpose of the tracked changes version is to identify those portions of the ToR that have been revised in response to agency comments. A clean version of the revised Scoped SWS ToR is included with this submission package.

Summary

The enclosed Final Revised Scoped SWS ToR is intended to provide a detailed characterization of existing conditions, an assessment of the potential impacts, mitigation measures and comprehensive natural heritage, servicing and stormwater management strategies for the Primary Study Area. The ToR will also provide for an overview, generally consisting of a desktop analysis, of the existing natural heritage and natural hazard features within the Extended Study Area with recommendations for further work as part of the upcoming Phase 2B Employment Lands SWS process.

We appreciate the input to date and look forward to continuing to work with the agencies as we complete this study. Please contact the undersigned if you have any questions or would like to schedule a meeting to discuss this further.

Yours truly,

A handwritten signature in cursive script that reads "Lawrence".

Jennifer Lawrence, MCIP, RPP
President

encls. (2)

cc: Ms Emma DeFields (4 hard copies)
Ms Shelley Partridge (2 hard copies)
Mr. Frank Doracin, Mr. Mike Vernoooy
Mr. Glen Hansen

Town of Halton Hills - Halton Region

Scoped Subwatershed Study
NE Corner Steeles Avenue and 8th Line
Terms of Reference

Prepared for:



Prepared by:

Jennifer Lawrence and Associates Inc.

MGM Consulting Inc.

Savanta Inc.

GEO Morphix Ltd.

DS Consultants Ltd.

January 10, 2020

1.0 Overview

The purpose of the Scoped Subwatershed Study (Scoped SWS) is to study specific portions of Subwatershed 5 east of 8th Line and west of the 9th Line, within the Sixteen Mile Creek Watershed, that were not studied as part of the Phase 1B Premier Gateway Scoped SWS. This work will be limited in detail to that which is necessary to support the completion of the Official Plan and Zoning By-Law Amendment and associated servicing studies related to the development proposal at 8079 8th Line (Subject Property). A future Subwatershed Impact Study (SIS) is not anticipated for the Primary Study Area as the Scoped SWS Terms of Reference (ToR) have been prepared with the intention of the study results and recommendations leading to a SWS / SIS level of study. A Functional Servicing Report will be undertaken in the future to support the site plan application. In addition, this Scoped SWS will confirm the extent of the Regional Natural Heritage System (RNHS), with refinements where necessary and justified, and identify management and implementation measures required to ensure the protection of natural heritage features and hydrological functions resulting in appropriate land use policies within the Official Plan and Zoning By-Law Amendment.

The Scoped SWS Study Area is located within the Sixteen Mile Creek Watershed, which is within the jurisdictional area of Conservation Halton (CH). The lands are within the Eastern Branch of Sixteen Mile Creek within Subwatershed 5. The East Sixteen Mile Creek flows through the Study Area as well as two small tributaries, on the Subject Property, referred to as Tributaries A and B in previous correspondence. The Scoped SWS Study Area has been divided into two areas for the purpose of this Study (see **Figure 1**):

1. **Primary Study Area** – consists of the land at 8079 8th Line (Subject Lands), seven residential properties fronting 8th Line (8137, 8149, 8159, 8169, 8177, 8191 and 8195 8th Line) and the Hornby Presbyterian Cemetery at 8021 8th Line. Detailed fieldwork will be undertaken within the Primary Study Area to characterize the natural heritage and natural hazard features and functions.
2. **Extended Study Area** - consists of lands to the east of the Primary Study Area to Ninth Line including 14829, 14847 and 14849 Steeles Avenue and 8028, 8040, 8278 and 8310 9th Line. Desktop analysis will be undertaken for the lands within the Extended Study Area in order to characterize the natural heritage and natural hazard features and functions. Existing reports, studies and mapping will be used to establish a preliminary characterization for these lands however, detailed fieldwork is anticipated as part of the Phase 2B Premier Gateway Subwatershed Study.

The Extended Study Area consists of lands to the east of the Primary Study Area to Ninth Line thereby resulting in the need to consider upstream drainage areas and land use, the provision of protecting these tributaries through the study area, as well as mitigation of downstream impacts. There are also headwater drainage features (HDFs) within the Primary Study Area that will need to be evaluated and classified with regard to the appropriate management approach, in accordance with current principles and guidelines. The background reports for the Sixteen Mile Creek Watershed provide watershed level guidance that is to be used in this study.

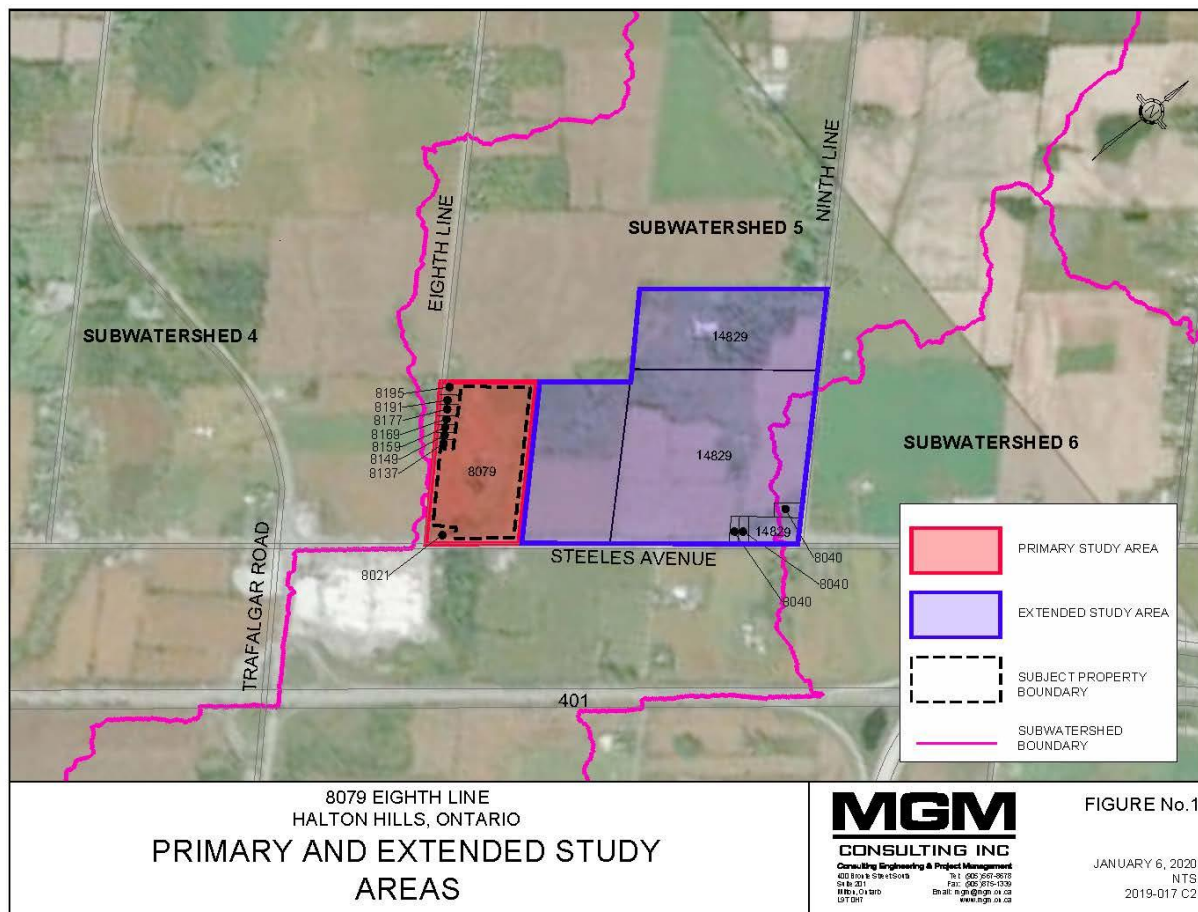


Figure 1. Primary and Extended Study Area

In emails from CH, the Region and Town dated November 1, November 5 and November 5, 2019 respectively, the agencies have advised that the following level of study is required for the Primary and Extended Study Areas:

Table 1. Study Requirements – Primary and Extended Study Areas

Area of Study	Primary Study Area	Extended Study Area
Fisheries	Fieldwork	Desktop Analysis
Benthics	Fieldwork	Desktop Analysis
Terrestrial	Fieldwork	Desktop Analysis (review wildlife atlases and aerial interpretation). Additional fieldwork would be required as part of the Phase 2B SWS to determine whether natural heritage features are present outside of the Primary Study Area.
Hydrology	Hydrologic Model	Hydrologic Model for Extended Study Area and lands in the upstream area, consistent with the Phase 1B approach. This is needed to characterize pre-development and post-development hydrology.
Hydraulics	Hydraulic Model	Not Required

Area of Study	Primary Study Area	Extended Study Area
Fluvial Geomorphology	Detailed Fluvial Geomorphological Assessment	<p>Desktop Fluvial Geomorphological Assessment for Extended Study Area and lands downstream.</p> <p>Erosion threshold should be supported by a fluvial geomorphological assessment which should:</p> <ul style="list-style-type: none"> • Consider the potential future land uses associated with non-participatory lands within the Premier Gateway Phase 2B Secondary Plan Area that fall within the East Sixteen Mile Creek Subwatershed or Extended Study Area when developing erosion thresholds for the Subject Property; • Reconfirm erosion thresholds established for lands downstream; • Identify any limitations in absence of detailed assessment of the Extended Study Area and provide justification why desktop analysis for the Extended Study Area is sufficient at this stage in order to support zoning decisions; • Identify potential scenarios, if any, where a detailed analysis of the Extended Study Area may have implications on criteria or recommendations for the Subject Property (e.g. potential need for overcontrol within Subject Property to compensate for sediment supply should a more sensitive reach upstream be identified, resulting in more stringent erosion threshold upstream) and further identify mechanisms how this can be addressed; and, • Clearly state requirements / recommendations for any future developments within the watershed and outside of the Subject Property (e.g. the need to revisit upstream reaches at a minimum).

This study will:

- Be conducted in accordance with Section C7 of the Halton Hills Official Plan, and all relevant policies, procedures and regulations of agencies with jurisdiction
- Provide sufficient detail to support the Official Plan and Zoning By-Law Amendment servicing studies,
- Utilize existing information, where appropriate.
- Examine and refine the landscape scale analysis undertaken by Sustainable Halton to develop a RNHS, in keeping with section 116 of ROPA 38 and guided by the implementation framework described in Sustainable Halton Report 3.02: Natural Heritage System Definition and Implementation.
- Develop mapping for the protection of an NHS which is to include regulated natural hazards and wetlands,

- Recommend implementation requirements during the site plan phase.

Future Studies and Analysis

It shall be understood that the purpose of this scoped SWS is to identify constraints and design criteria that would be sufficient to support the Official Plan and Zoning By-Law Amendments and site plan application but in no way replaces the need to obtain any other permits/and or approvals as may be necessary (e.g. CH permits, *Planning Act* approvals, building permits etc.). The Study Consultant shall therefore clearly identify what additional work may be required as part of the site plan application including but not limited to the following:

- Detailed Design of Stormwater Management Facilities (Quality and Quantity)
- Monitoring Requirements and Performance Measurements
- Detailed Implementation Plan and Phasing

Scoped SWS will include recommendations to help support the integration of the Subject Lands into the Area-Specific Plan, as referenced in the Minutes of Settlement for ROPA 47 (**Appendix D**).

1.1 Work Plan

These ToR will serve as a framework to guide the preparation of a Detailed Work Plan by the proponent's Project Consultant for the Study.

1.2 Study Area

The focus of this study will be the Primary Study Area, however scoped desktop data collection (**Table 1**), analysis and assessments will be conducted within that portion of Subwatershed 5 and 6 as shown on **Figure 1** labelled as Extended Study Area.

1.3 Study Goals and Objectives

The overall goal of this Study is to define and analyse constraints and provide recommendations for a framework for the protection, conservation and sustainable management of natural resources within the Primary Study Area and to identify any management or future study requirements in the Extended Study Area that should be considered as part of the Phase 2B SWS process. The study will identify the biodiversity, connectivity and ecological and hydrologic functions of natural features, areas and systems throughout, and adjacent as appropriate, to the Primary and Extended Study Areas and where appropriate.

The study will provide sufficient detail to support the designation of a sustainable NHS, through refinement of the RNHS, as well as recommendations for implementation at the Site Plan stage and associated servicing studies. Future development will be required to adhere to and implement these recommendations.

1.3.1 Natural Hazards

- To identify Natural Hazards and recommend a management strategy which prevents, eliminates or minimizes the risks to life and property caused by flooding and erosion hazards.

1.3.2 Water Resources

- To identify water quality and quantity constraints associated with surface water and groundwater features within and adjacent to and downstream of the Primary Study Area, including their interaction and associated ecological and hydrologic functions.

1.3.3 Natural Heritage

- To provide recommendations for the protection, conservation and management of natural hazards, natural heritage and water resource features within the study area;
- To provide sufficient detail to support the designation of an NHS, through refinement of the RNHS, as well as identifying areas for future development.

1.3.4 Additional Objectives

Additionally, the following with respect to environmental and potential downstream impacts from development should be addressed.

- To identify and analyse existing watercourses and drainage features in sufficient detail to allow for the implementation of management recommendations arising out of this Scoped SWS at the site plan stage to protect, restore and manage these features and their functions.
- To identify groundwater resources and constraints to development to ensure functions are maintained during and following development.
- To provide recommendations for a management strategy, implementation and monitoring plan to be applied.

1.4 The Study Approach

The Study will include:

- a. An assessment of the existing and potential subwatershed resources (physical and natural) using standard methodologies and natural heritage components.
- b. A determination of existing land uses and subwatershed resources.
- c. Identification of existing and future constraints and opportunities including a refined NHS as appropriate.
- d. Setting of targets to be met.
- e. Evaluations of the potential impacts of the proposed land use on the Primary Study Area and future land use within the Extended Study Area.
- f. A recommended management strategy to mitigate unavoidable impacts.
- g. Recommendations for a monitoring program to verify that predicted performance is achieved and to allow for adaptive management response.

Recommendations for future site specific studies, including a Functional Servicing Report and Stormwater Management Report which will describe in detail the specific measures which will be undertaken to implement the management objectives and meet the targets and further opportunities defined in this study.

2.0 Study Organization

2.1 General

The study will be consistent with the goals, objectives and targets of the Sixteen Mile Creek Watershed Plan, Regional Official Plan Amendment No. 38, the Halton Hills Official Plan as amended by Official Plan Amendment No. 10 and the Minutes of Settlement as executed on XX, 2019 (**Appendix D**). Recognizing that the Sixteen Mile Creek Watershed Plan was completed in 1996, updated goals, objectives and targets should be established through this study and will be largely based on those of the Phase 1B SWS.

The Region, Town and CH have policies in place specifically related to watershed and subwatershed planning. The study will conform to:

- Sections 116.1 and 145(9) and all other relevant sections of the Halton Region Official Plan 2009 (ROPA 38);
- Section C7 - Watershed Planning, and all other relevant sections, of the Halton Hills Official Plan.
- Policies and Guidelines for the Administration of Ontario Regulation 162/06 and Land Use Planning Policy Document, Conservation Halton, April 27, 2006 as revised February 25, 2016.

2.2 Canadian Environmental Assessment Act (CEAA)

Any future final design plans will require approval by the various regulating agencies and as such any design criteria recommended in this study shall be consistent with the requirements of CEAA.

2.3 Other Legislation

Other legislation that may be relevant to this includes, but is not limited to, the *Planning Act*, *Endangered Species Act*, *Species at Risk Act*, *Conservation Authorities Act*, *Fisheries Act*, *Migratory Birds Convention Act*, *Clean Water Act*, *Ontario Water Resources Act*, *Lakes and Rivers Improvement Act*, *Water Opportunities Act*, and *Places to Grow Act*.

2.4 Public Participation

In order to maintain transparency and obtain public input the Project Consultant will attend Public Information Centres held in accordance with the *Planning Act* as part of the Official Plan and Zoning By-Law Amendment process during the course of the study.

2.5 Technical Advisory Committee (SWTAC)

The SWTAC will be chaired by the Town and have the following representation:

- Town - 4, includes Chairperson
- Conservation Halton - 4
- Region -2
- Ministry of Natural Resources and/or Department of Fisheries and Oceans, as required.

The purpose of the SWTAC will be to provide technical review and input into the Study. The SWTAC will consult directly with the Town, CH, MNR and other appropriate agencies for their formal endorsement of all required components of the study.

2.6 Digital Information

- i) All digital information, data, sketches, drawings and reports generated by the Project Consultant for the purpose of this study shall become the property of the Town, Region and CH.
- ii) For modeling related data products, digital copies of the model input and output, as well as licensed copies of any proprietary modeling software are to be provided to the Town, Region and CH.
- iii) Digital copies of the written reports are to be provided in both MS Word 2010 and PDF format.
- iv) All mapping products produced for the study shall be geo-referenced to the following coordinate system: UTM NAD 83, Zone 17 (EPSG:26917), with either a Canadian Geodetic Vertical Datum of 2013 (CGVD2013) or CGVD1928 with the 1978 adjustments. Consultation with CH staff is recommended regarding use of a consistent vertical datum for the purpose of floodplain mapping.
- v) Map "layers" produced by the Project Consultant will be topologically correct (i.e. adjacent polygon features will be without gaps/overlaps and share vertices/nodes where appropriate). Additionally, the Project Consultant should ensure attribute names are not truncated when converting data between file formats.
- vi) New features captured by the Project Consultant using GPS or heads-up digitizing from air photography will have a capture accuracy rating for the feature included as an attribute (e.g., accuracy = +/- 5m).
- vii) A mapping layer index will be provided listing the layer name and providing a description/abstract of the layer's content. Alternatively, if a mapping layer index is not provided, FGDC compliant metadata shall be created for each layer produced by the Project Consultant.
- viii) Digital data will be delivered in one of the following formats: a) ESRI geodatabase v9.3 feature classes or ESRI shape file format. If the Project Consultant utilizes ESRI ArcGIS to produce maps, the matching .mxd will be provided that corresponds to the map figure.
- ix) If software limitations prevent the Project Consultant from meeting these requirements, alternate formats may be considered (e.g., DGN) with the written agreement of the Town. Town GIS staff should be consulted if additional technical details are required to these requirements.
- x) Species information is to be provided to CH in digital spreadsheet format and significant species must be geo-referenced. ELC data sheets are to be provided to CH in PDF format.

2.7 Reports

a) Characterization Report

A preliminary Characterization Report will be provided to the SWTAC for review. This report will contain the following and will include all supporting data, and analysis (including discussion of methodology, detailed calculations, paper and digital copies of the modeling input and output files, discussion of assumptions made, and a sensitivity analysis related to the assumptions):

- preliminary hydrogeological assessment
- watershed hydrology (existing)
- hydraulic assessment report and floodplain mapping (existing)
- existing land use
- erosion assessment (including fluvial geomorphology report to identify erosion thresholds and watercourse meander belts, and slope stability analysis)
- natural heritage features and functions identification and evaluation within the Primary Study Area (including internal and external linkages) and Extended Study Area as per **Table 1**
- classify RHNS components identified in the Primary Study Area and identify candidate RNHS components in the Extended Study Area. Specific/definitive RNHS classifications in the Extended Study Area will not be completed as part of the Scoped SWS given the lack of access to these lands for fieldwork
- stream classification, fish community inventory (based on electrofishing results if MNRF issues a fall survey permit prior to the completion of the Characterization Report otherwise, based on background information available from the Phase 1B Premier Gateway SWS, Toronto Premier Outlet SIS and information available from CH's Long-Term Monitoring Program) and fish habitat assessment. If MNRF does not issue a fall survey permit, a request will be submitted for a late-spring or summer 2020 survey. The intention will be to provide any information collected in 2020 as an Addendum to the final report as it is not anticipated that the results of the survey will change the characterization or significance of the watercourses within the Primary Study Area.
- water quality evaluation (including water chemistry and benthic)
- summary of applicable Federal, Provincial, Regional, Municipal and CA policies and legislation
- preliminary identification of hazard lands
- preliminary delineation of constraint lands
- identification of drainage density targets

b) Final Report

This report will detail the following:

- Anticipated location and forms of development and key transportation and servicing/ utility corridors within the Primary Study Area, maximum impervious coverage within the Primary and Extended Study Areas; any specific access/safety requirements associated with various transportation corridors (i.e. flood free access or safe access egress per MNR, minimum depth of cover at watercourse crossings for utilities, etc.).
- watershed hydrology (proposed)

- hydraulic assessment report and floodplain mapping (proposed)
- Potential impacts of future development (Water Quality and Quantity - flooding, erosion, and hydrogeology);
- Natural Heritage System - refinements to extent and/or function of natural features and functions)
- Recommendations for preferred management measures and future studies / implementation measures. The report will also include recommendations for the Phase 2B SWS for those lands within the Extended Study Area and any limitations on the recommendations within the Extended Study Area given the lack of access to undertake site specific fieldwork
- Refinement of hazard and constraint lands
- Digital copies of model input/output

The *Final Report* will consist of:

- General Report which documents the study findings and analysis in detail
- Technical Appendices
- One digital copy of all GIS mapping collected or developed during the study with either a master index or metadata.
- All documents and supporting data collection, analysis and models digital format
- Two licensed copies of the Hydrologic and Hydraulic models including all input/output data
- Digital species lists and ELC data sheets

c) *Report Distribution*

- One hard copy of each Characterization and Final Report will be prepared for each member of the SWTAC.

2.8 Meetings

The Project Consultant will allow for two SWTAC meetings and one site inspection:

2.8.1 SWTAC Meetings:

- Review of Scoped SWS ToR;
- Review of Characterization Report

Additional SWTAC meetings may be scheduled as necessary.

2.8.2 Site Inspection

- wetland staking within Primary Study Area (completed October 2019). Top of bank within Primary Study Area previously staked by CH in 2015.

3.0 HYDROLOGY

3.1 Background

A detailed hydrologic model shall be developed and calibrated for the subwatershed for existing, and future development scenarios. The model should be a continuous, deterministic, hydrologic model, approved by the SWTAC, with strong physical representation of surface runoff, base flows, and surface groundwater interaction. The modeling should recognize the impacts of agricultural improvements such as tile drains, ditching etc., as well as other changes to the landform which would impact infiltration, and evaporation (i.e. hummocky terrain, etc.).

Flows for the Sixteen Mile Creek and its tributaries were developed as part of a 1986 Flood Damage Reduction Study. Reports and HYMO modeling from this study are available, however, the modeling platform must be updated to allow for continuous simulation, and the catchments reviewed and refined to reflect landscape level changes, updated detailed topographic information, and the scale of this study. CH can provide refined catchment areas to be considered in the updated modeling. Physical feature mapping of the watersheds and subwatersheds, including subwatershed boundaries, upstream catchment areas, watercourses, drainage swales, wetland features, undrained depressions, and other drainage improvements (i.e. tile drains), shall be developed based on existing mapping and verified in the field. Sub basins should be determined to establish nodes at points of interest. The intent of the modeling is to provide the details required for the site plan application within the Primary Study Area. The model should be updated to reflect the new information obtained through the SWS and be representative of the more detailed scope of the SWS. The model should then be calibrated to provide comparable flows at the sub basin outlet to those determined in the previous watershed study for both specific design storms and low flows. The model input parameters should be compared to the previous watershed study and modified to represent the more detailed subwatershed model. The model should then be validated based on local data collected (i.e. measured stream flow and precipitation data, as well as detailed geomorphologic information and local knowledge of past flooding frequencies). The review should also include an analysis of other sources of hydrology data that are available at the time of study

Based on discussions at the October 10, 2019 SWTAC, it is possible that an updated hydrologic model may have been prepared for the Toronto Premier Outlets SIS. The Study Team will review the report and modelling to determine if it is appropriate to use/refine as part of this Scoped SWS.

A hydrologic analysis will be conducted for the existing and future development conditions to determine pre and post-development flows and investigate the impact of post development conditions on: flows, volumes, flood levels, stream erosion, and base flows. Consideration must be given to how modification of existing drainage systems (including drainage improvements such as tile drains) will impact post development flows. This study shall identify SWM requirements that ensure downstream peak flows are not increased, natural floodplain storage is not lost, downstream channel erosion is not increased and stormwater runoff is appropriately treated to meet water quality targets. Flood flows need to be maintained so that hydrological functions including the scouring of pools and the deposition of substrate as/on riffles are not lost. These functions need to be maintained so that the watercourses are able to maintain this function in perpetuity during the post development scenario. The recommendations will

need to be defined in sufficient detail to support implementation of the site plan. Recommendations for future additional analysis within the Extended Study Area as part of the Phase 2B SWS and/or detailed analysis which is to be carried out at the site plan stage, if necessary, shall also be included.

3.2 Background Review and Field Work

Background information on the Primary and Extended Study Area will be collected from all available sources and by field inspection (within the Primary Study Area), including but not restricted to the following:

- Previous applicable subwatershed studies, subwatershed impact studies and stormwater management studies
- Aerial photos
- Topographic and photo base maps, and refined mapping products
- Flow records, high water marks, precipitation
- Water use
- Stream flow monitoring
- Existing fish community data holdings with DFO, MNR and CH.
- Existing aquatic invertebrate, water chemistry, channel morphology and water temperature holdings at CH.
- Existing PTTWs (MECP) within, and upstream of, the Primary and Extended Study Areas.

3.3 Characterization Analysis

Tasks to be carried out by the Project Consultant are:

- a) The Project Consultant will, based on background information and field investigation provide recommendations for an appropriate number of stream flow and precipitation gauges needed for future analysis and performance review of water quality and quantity management strategies that are implemented in the future. The Consultant shall install one (1) strategically placed gauge on the Subject Lands as part of this project and as early as possible upon commencement of the project, to be used to validate the model. The recommended method of flow measurements will include:
 - continuous flow gauging and recording,
 - local rainfall recording,
 - collection of high water and debris line data following high flow events (beginning in 2020),
 - staff gauges with local high flow observers,
 - seasonal in-stream measurement of spot base flow, particularly in conjunction with water quality sampling and fish and benthic sampling when possible.
- b) The hydrology study will be undertaken in accordance with appropriate Engineering Standards and will extend to the point where potential development lands constitute less than 10% of the drainage area of the system (i.e., to the 407 corridor). Hydrologic modeling on the Sixteen Mile Creek is be completed as per **Table 1**. The Project Consultant is to ensure the model accounts for the following

processes: soil infiltration and moisture, channel storage and seasonal effects (snow accumulation and melt).

- c) The selected hydrologic modelling parameters for each existing land use and each subcatchment should be documented and justified. Return frequency flows will be determined based on the existing predevelopment conditions. Return period flow estimates will be made using continuous simulation and frequency analysis for a minimum of 30 years of data. Municipal design storms along with several historical events including the Regional Event and any other design storms provided by the SWTAC (i.e. Regional IDF's if available, August 4, 2014 Burlington Storm, July 8, 2013 Mississauga Storm, etc.) will also be evaluated. Output will be summarized for both the continuous and event model runs.
- d) The existing condition watershed model will be calibrated relative to previously calibrated models (i.e. 1986 FDRP Study).
- e) The calibrated existing condition watershed model will be validated with available flow records and high water marks and stream flow/rainfall data collected during the study. The refined existing conditions model will then form the basis of the post-development conditions model.
- f) The results of the predevelopment modeling and water balance will be used to set targets for out flow control rates and return period flow rates at key locations as well as weighted flow rates for development areas.

3.4 Interim Analysis/Impact Assessment

Results of the hydrologic analysis for developed conditions will be used for the hazard land mapping and to determine a SWM strategy that will mitigate potential adverse development impacts.

The fluvial geomorphologic and erosion assessments, in conjunction with the validated hydrologic analysis will ultimately be used to determine the precise amount of control required for all storm events.

The Project Consultant will establish a post development hydrologic model to assess the impact of development on stream peak flows and base flows and demonstrate that the proposed SWM strategy mitigates against both increases in the magnitude and duration of cumulative erosion threshold exceedance through evaluation cumulative excess shear, cumulative effective stream power, and flow duration.

3.5 Scope

- a) Update the validated existing conditions model in accordance with planned future land use (based on maximum imperviousness associated with the proposed development form). The selected hydrologic modelling parameters for each proposed land use and each subcatchment should be documented and justified within the Final Report. Determine quantity control criteria based on event frequency for the 1:2 year through to Regional Storm distribution.
- b) Utilize established erosion thresholds in conjunction with the continuous post development hydrologic model to determine a SWM strategy that will mitigate against both the duration and magnitude of cumulative exceedance relative to cumulative excess stream power and cumulative excess shear. Outflow control rates specific to erosion protection are to be set at key locations, and

weighted flow rates are to be provided for development areas. At this level of study a zero tolerance for erosion threshold exceedance is required, unless otherwise accepted by the SWTAC.

- c) Based on the erosion assessment (described in subsequent sections) and the hydrological assessment, the Project Consultant will develop a SWM strategy for the Primary and Extended Study Areas. The strategy should present unitary flow and storage rates per impervious hectare, and clearly identify the model sensitivity to changes in the ratio of impervious cover, identify the requirement to revisit unitary storage and discharge rates as part of subsequent studies should impervious coverage change.
- d) The conceptual design for the SWM pond blocks/facilities within the Primary Study Area should be provided in accordance with the Town of Halton Hills Stormwater Management Policy and include calculations and drawings showing SWM pond block/facility location including maintenance access provisions and demonstrating consideration of grading limitations.
- e) Return frequency flows will be determined based on future land use for both uncontrolled conditions and for controlled conditions with the anticipated SWM controls in-place. Return period flow estimates will be made using both event and continuous simulation analysis (with a minimum of 30 years of data applied for continuous simulation). The preliminary sizing of the SWM facilities may be completed using event based modeling, however output and results for both the continuous and event simulation must be presented to demonstrate that peak flow control and erosion mitigation has been achieved on both a continuous and event basis. Additionally, the SWTAC may provide other design storms to be evaluated (August 4, 2014 Burlington Storm, July 8, 2013 Mississauga Storm) as part of the climate change sensitivity analysis.
- f) The Project Consultant will identify opportunities to utilize LID methods and assess/quantify their feasibility based on site specific testing of soil conditions in accordance with Appendix C - Site Evaluation and Soil Testing Protocol for Stormwater Infiltration in LID SWM Planning and Design Guide by CVC and TRCA, 2010. Stormwater runoff should be treated via a multi-barrier approach, incorporating onsite, conveyance, and end-of-pipe controls and LIDs to acceptable standards as determined in the MECP's Stormwater Management Planning and Design Manual (2003) or more recent standard as well as the Town of Halton Hills stormwater management practices.
- g) The Project Consultant will make a recommendation with respect to the incorporation of adaptation needs related to climate change within the SWM strategy. Generally, this will include discussion with respect to the potential for more frequent or intense storms with reference to the Burlington and Mississauga storm analysis.
- h) Undertake a low flow analysis for any watercourse diversions or drainage basin boundary modifications.
- i) Determine whether post to pre-quantity control should be required for the Regional storm.

3.6 Monitoring

The Final Report shall provide a recommendation for a future monitoring plan, including both during and post construction monitoring to demonstrate the functionality of the SWM system and sediment and erosion control system. The monitoring program is to specify quantifiable monitoring parameters that may be used as triggers for adaptive management.

4.0 HAZARD LAND IDENTIFICATION

The study should identify the extent of the hazard lands within the Primary Study Area in accordance with MNRF and CH Guidelines. Hazard lands of key concern for this area include flood hazards, and areas subject to stream erosion and slope instability. Identification of natural hazards must be completed to the satisfaction of CH and SWTAC. Existing information (i.e., flood plain mapping and CH Approximate Regulation Limit mapping) will be used to identify the extent of hazards within the Extended Study Area. The hazard limits within the Extended Study Area will need to be refined as part of the Phase 2B SWS process.

To determine the hazard limit associated with valleys (confined and unconfined), both the flooding and erosion hazards are to be considered. The hazard limit is set by the greater of the flood or erosion hazard, plus the applicable development setback based on the appropriate policy and regulatory requirements. It should be noted that additional buffers and/or corridor widths may be needed in consideration of other factors introduced by the study assessment including, but not limited to, the protection of ecological and hydrologic functions such as critical function zones and impacts to adjacent lands. The minimum setback from the flooding and erosion hazards associated with Sixteen Mile Creek and its tributaries is 15 m.

4.1 Background Review and Field Work

Background information on the Primary and Extended Study Areas will be collected from all available sources and by field inspection (for the Primary Study Area), including but not restricted to the following:

- Review of the historical aerial photographs with attention being paid to land use changes, channel changes, and migration rates
- Reach delineation based on scientifically defensible methodology (see CVC's Fluvial Geomorphic Guideline -Fact Sheet IV)
- Determination of reach sensitivity and overall classification
- Rapid assessment to evaluate stability of reaches based on acceptable protocols
- Field survey of watercourse cross section and hydraulic structures
- Geotechnical investigation to determine long term stable slope inclination may be required for confined valleys

4.2 Flood Hazards

Characterization Analysis

Review available hydraulic models and update modeling as required to reflect:

- the more detailed scale of this analysis,
- survey data, and
- ensure the accuracy of the existing conditions floodplain.

Develop flood lines for all watercourses not currently included in the existing flood plain mapping within the detailed Primary Study Area and a sufficient up and downstream distance to clearly characterize all hydraulic interactions. The floodplain calculations shall be based on the Technical Guide - River & Stream Systems: Flooding Hazard Limit, Ministry of Natural Resources & Watershed Science Centre, 2002. The U.S. Army Corps of Engineers HEC RAS model is acceptable for the hydraulic analysis. Field survey of existing channel cross section and profile, floodplain characteristics, and crossing structures will be required. For floodplain areas, available topographic information (0.5 m contours) may be utilized, provided a good correlation between the topographic mapping and detailed site survey is demonstrated.

All watercourses regulated by CH (Tributary B and East Branch of Sixteen Mile Creek) will have a flood plain analysis completed. Riparian storage is only required for regulated watercourses. CH has confirmed that Tributary A is considered an HDF and not a regulated watercourse.

The Characterization Report is to contain:

- references for all sources of topographic information (including a summary of any correlation analysis completed),
- references for all hydrologic information incorporated into the study,
- a summary of the evaluation, justification for selected hydraulic parameters, and summary tables of the findings,
- a digital copy of all hydraulic modelling (including input and output files, as well as documentation on each of the model runs), and
- full size signed and sealed copies of floodplain mapping for the regulatory storm on topographic base mapping, overlain with the hydraulic cross section locations (labelled with cross section ID, and the associated Regional and 1:100 year water levels).

4.3 Interim Analysis/Impact Assessment

Update floodplain modelling and mapping based on future hydrology and ultimate valley and channel conditions (i.e. consider future vegetation conditions in selected Manning roughness). The update is to be completed for the entire detailed Primary Study Area and a technically appropriate up and downstream distance, and will define the regulated floodplain hazard. This analysis should be completed in accordance with the standards set out in the MNR Technical Guidelines based on the flows resulting from the ultimate development scenario within the Primary Study Area and an assumed 80% imperviousness for the Extended Study Area developable lands. The hydraulic model shall demonstrate water levels, storage, and velocities for all design storms including the regulatory storm. The U.S. Army Corps of Engineers HEC RAS model is acceptable for the hydraulic analysis.

The final model should be flexible enough to evaluate modifications to the existing floodplain including realignment or changes to the corridor width and profile.

The Final Report is to contain:

- references for all sources of topographic information (including a summary of any correlation analysis completed),

- references for all hydrologic information incorporated into the study,
- a summary of the evaluation justification for selected hydraulic parameters, and summary tables of the findings,
- a digital copy of all hydraulic modelling (including input and output files, as well as documentation on each of the model runs), and
- full size signed and sealed copies of floodplain mapping for the regulatory storm on topographic base mapping, overlain with the hydraulic cross section locations (labelled with cross section ID, and the associated Regional and 1:100 year water levels) and the proposed development plan.

4.4 Erosion Hazards

4.4.1 Characterization

The erosion hazard limit associated with a watercourse is based on the valley characteristics - confined or unconfined. The stream characterization work (described below), in conjunction with a site walk with CH staff and other members of the SWTAC, will be used to determine the watercourse status. Per the Ministry of Natural Resources and Watershed Science Centre's "Technical Guide - River & Stream Systems: Erosion Hazard Limit," (2002), the Erosion Hazard Limit is calculated based on the meander belt for unconfined systems, and the greater of physical top of bank or the long term stable top of slope (toe erosion and slope stability components) for confined valley systems. During the site walk all confined systems will be identified, and the physical top of bank will be staked in the field by CH staff (note: this top of bank staking took place in 2015). Geotechnical analysis is required to confirm the location of the long term stable top of slope, which forms the basis of the erosion hazard limit in a confined system. The intent of this study is to establish an accurate identification of the erosion hazard limit.

4.4.2 Analysis

- a) The Project Consultant will identify, by field inspection of all channels in the Primary Study Area, sites where stream bank erosion and slope instability is present and/ or should be considered as part of the erosion hazard.
- b) The Project Consultant will determine historic toe erosion rates and anticipated future toe erosion rates (if localized increases to on-site erosion are deemed unavoidable and acceptable to the Town and CH).
- c) Meander belt and slope stability assessments shall be completed in accordance with MNR Technical Guidelines.
- d) Determine minimum stream corridor based on the erosion hazard using meander belt width and/or slope stability setback and other safety factors, as appropriate. The corridor sizing will build upon the procedures followed by CH in their generic regulation mapping. The intent is to provide a corridor width, to be used at the site plan stage.

The erosion hazard assessment must be completed by a qualified licensed professional engineer or professional geoscientist. Climate change should be taken into account when planning creek block widths. Generally, consideration for climate change, as it relates to erosion hazards, will include discussion of

importance of buffers adjacent to hazard lands and the inclusion of a factor of safety in the meander belt width determination.

At a minimum the corresponding report must include supporting field data, analysis, discussion on the methodology applied, and supporting calculations regarding determination of the erosion hazard, and a signed and sealed, full size, and scaled hard copy of a drawing showing:

- Detailed topographic information (0.5m contours preferred)
- The current watercourse centreline,
- Reach break locations,
- The creek's central tendency (meander belt axis),
- Available historic watercourse centrelines;
- The calculated meander belt,
- The analyzed 1:100 year erosion setback (100 year migration rate) and
- The regulated 15m allowance.

A second copy of the above information overlain on the most current orthophoto should also be provided.

5.0 GEOMORPHOLOGIC ASSESSMENT

5.1 Characterization

Based on the morphological attributes of each channel reach, determine the physical and biological health of the watercourses. The Geomorphic analysis will support the erosion assessment and determine threshold flows at appropriate sensitive erosion sites throughout the SWS area.

5.2 Background Review and Field Work

Background information on the Primary and Extended Study Areas will be collected from all available sources and by field inspection (for the Primary Study Area), including but not restricted to the following:

- A geomorphic assessment must be completed by a qualified fluvial geomorphologist.
- Determination of drainage network areas divided into subcatchment areas, calculations of drainage densities and frequencies, stream orders etc.
- Update of the historical analysis of reaches with attention being paid to land use changes, channel changes and migration rates derived from aerial photographs.
- Reach delineation based on scientifically defensible methodology (see CVC's Fluvial Geomorphic Guideline -Fact Sheet IV)
- Determination of reach sensitivity and overall classification.
- Rapid geomorphic assessment to evaluate stability of reaches based on acceptable rapid assessment protocols
- Define erosion thresholds based on scientifically defensible models.
- Detailed site survey of bank full conditions and channel profile.
- Longitudinal cross sections of watercourses.

5.3 Analysis

A geomorphic analysis will be conducted to determine the character and behaviour of the subwatershed. The steps involved in the analysis include:

- a) The Project Consultant will identify, by field inspection, sites where stream bank erosion and slope instability is present and/ or should be considered in the impact assessment report, as well as all locations where structures may be at risk.
- b) Complete rapid field assessments while walking the drainage network in the Primary Study Area, and documenting areas sensitive to erosion, and any significant field conditions, i.e. bank erosion, slumping, woody debris jams, scour pools, depositional areas, age of point bar vegetation, etc. Photographs of significant features will be required.
- c) Describe the form and stability of the system through analysis of historical aerial photographs and standard classification methods as directed by the SWTAC (e. g. Index of Stability (Downs 1995), Rapid Geomorphic Assessment (Ontario Ministry of Environment, 2003) Rapid Stream Assessment Technique (Galli,1996), or other suitable methods in consultation with the SWTAC).
- d) Analyze downstream trends in channel morphology and factors affecting stream stability, including any historic changes in flow regime.
- e) Evaluate drainage network (density) on a sub-catchment basis, including an evaluation of channel functions, such as the supply, movement and storage of sediment.
- f) Document the location and nature of significant sediment sources. The Study Team will identify natural sources of sediment as opposed to anthropogenically produced sediments. This will be a qualitative evaluation as there is no formal criteria for differentiation between sediment sources. The Study Team will use similar criteria to those outlined in the HDFA Guidelines (TRCA/CVC 2014).
- g) Ensure data is collected that enables proper determination of opportunities and constraints, including stream corridor delineation following protocols used in generic regulation mapping and PPS protocols.
- h) Complete a sensitivity analysis of the headwater channel systems.
- i) Ensure linkages (e.g., relating channel form/ stability measures to biological integrity measures) between fisheries, stream morphology and other disciplines are maintained.
- j) Measurements of channel and bank characteristics and bankfull flow conditions should be carried out using standard protocols and known field indicators of the bankfull stage. Please include bankfull channel widths and depths.
- k) Surficial channel bed materials should be analyzed using a modified pebble count method; where surficial materials are too fine for a pebble count, bulk samples should be collected and analyzed using standard sieve and hydrometer techniques.
- l) Sub-pavement materials should be characterized using bulk samples and standard sieve and hydrometer techniques.
- m) Evaluate the bank vegetation, rooting depths, materials, percentage of cover for both banks at each detailed site. Wildlife habitat features (e.g. logs, snags, undercut banks, etc.) should be included in the evaluation.
- n) A level survey encompassing the detailed site should then be conducted to provide an idea of the local energy gradient present in the reach.

- o) Install a monitoring site with permanent monument pins which can be revisited and re-measured for historical changes in the cross sectional area of the channel.
- p) Detailed cross-section surveys using level surveys and monumented pins should be used for measurement of cross-section change. The detail of the survey should be fine enough to track changes (erosion, aggradation). This method is preferred over the erosion pin method due to the limitations of erosion pins and the potential disturbance caused by the installation of the pins.
- q) The Project Consultant will define erosion thresholds based on scientifically defensible models. A range of models should be applied to assess model sensitivity and gain a better understanding of the range of erosive conditions. Modeled results should be compared to actual field observations.
- r) The Project Consultant will identify flow constraints, which may avoid or reduce future bank and bed erosion problems.
- s) Complete hydraulic and geomorphic analyses and empirical relations from collected field data. This would include, but is not limited to bank full discharge, tractive force, permissible velocity, stream power, sediment transport, and hydraulic geometry relations.
- t) Assess cumulative headwater functions by assessing significant sediment sources, linkage with local hydrology and connection to larger scale, including input from supporting disciplines (e.g., TSS data from water quality; flows from hydrology; spot flow data from hydrogeology; habitat input from fisheries and terrestrial ecology).
- u) Determine drainage density targets. Compare against regional values and provide targets on a sub-catchment basis however, drainage density will not be used as a management strategy.
- v) Determine future watershed management strategies in a holistic way, including but not limited to consideration of aquatic and terrestrial linkages, hydrologic and hydrogeological inputs, sediment transport, and headwater function.
- w) Determine minimum stream corridor using meander belt width and other safety factors. The meander belt width delineation will build upon the procedures followed by CH in their generic regulation mapping. Identify opportunities for enhancement.

The report shall include recommendations relating to watercourse system attributes to provide guidance for creek blocks. Climate change should be taken into account when completing the erosion threshold analysis and planning creek block widths. Generally, consideration for climate change, as it relates to erosion hazards, will include discussion of importance of buffers adjacent to hazard lands and the inclusion of a factor of safety in the meander belt determination.

6.0 HYDROGEOLOGY

6.1 Background Review

Background information on the regional context and Primary and Extended Study Area will be collected from all available sources and through field investigation (for the Primary Study Area) to establish a conceptual model of the subwatershed, including but not restricted to the following:

- Regional groundwater studies (technical reports, pumping tests, geophysical surveys, etc.)
- Halton Region's Aquifer Management Plan

- Steeles Avenue Pumping Station construction and resultant aquifer depressurization information (if provided to Study Team by Region)
- Soils reports and geotechnical investigations
- Surficial soils, overburden geology and bedrock geology of the area and their hydraulic properties, including infilled bedrock valleys
- Existing well records, groundwater level and quality datasets (e.g.: MECP Water Well Record Information Database and Provincial Groundwater Monitoring Network, geotechnical borehole data, etc.)
- Groundwater taking and use (e.g.: MECP PTTW Database, Water Taking Reporting System Database, etc.)
- local climate data, Environment Canada climate data
- hydrology reports and Water Survey of Canada data
- reports or studies completed as part of the source water protection program
- aerial photographs, their use, and potential for inclusion in a monitoring program
- Reports of contamination and complaint files (MECP)

6.2 Characterization and Constraints

The Characterization Report with respect to hydrogeology shall be sufficient to help understand geological and hydrogeological conditions in the area, to determine the key characteristics of the bedrock and overburden systems and their functions in terms of controlling groundwater movement, availability, and quality in the area within the regional hydrogeologic setting. An integral component is to assess the interaction between the groundwater and surface water systems and to determine the overall role or function of this interaction in an ecosystem context. An assessment of the site location in relation to the vulnerable areas delineated through Source Water Protection studies for the Halton Region Source Protection Area should also be completed.

The Characterization Report should include:

- Maps of local physiography, topography and overburden and bedrock geology;
- Maps of private water wells, monitoring wells, borehole locations, groundwater elevations and inferred direction of all local aquifers based on appropriate existing information and supplemented with recent data if necessary, levels, flows and quality in all aquifers within the area based on existing information,
- Present construction details of available groundwater monitors
- Estimate zone of influence of the proposed development on groundwater and identify all groundwater receptors within and adjacent to the zone
- Identify existing recharge-discharge zones to help understand and maintain/ enhance base flow and in stream water temperature
- Identify groundwater recharge areas
- Identify suitable sites for urban stormwater infiltration to avoid contamination of the water table and/or deeper aquifers
- Determine the groundwater contribution to maintaining the existing natural areas (wetlands, environmentally sensitive areas, etc.)

- Describe where groundwater discharge areas may be supporting specific life process of aquatic species (e.g. fish spawning)
- Data collection completed to date

6.3 Monitoring

Recommend a groundwater level and quality monitoring program for the pre, during and post construction phases to evaluate the effectiveness of measures implemented, and allow for adaptive management.

7.0 WATER QUALITY

7.1 Background Review

This component is intended to provide a characterization of the existing surface water quality, including temperature, within the Primary Study Area that would form the basis for identifying constraints and facility requirements for the Primary Study Area.

Background information and reports will be utilized in the characterization of existing water quality conditions in the Primary and Extended Study Area. All relevant documents and data will be collected and reviewed to determine their applicability in undertaking a preliminary assessment of existing water quality conditions in the subwatershed. Best management practices to mitigate water quality impacts, based on the Study Team's experience, scientific principles and recent industry practices, will also be reviewed.

Data sets to be reviewed include:

- Water chemistry data from Provincial Water Quality Monitoring Network (PWQMN); and
- Water chemistry data from available local studies.

The Project Consultant shall identify monitoring data gaps would help in recommending sampling locations and frequency of additional monitoring to establish pre-development conditions.

A minimum of two surface water quality samples will be taken, with an agency preference for 3 sample periods if feasible. Sampling parameters will include:

- Flow regime
- Water temperature
- Nitrogen (nitrates, nitrites, TKN)
- Total phosphorus (Total phosphorus, soluble reactive phosphorus)
- Chlorides
- Metals (Copper, zinc, cadmium, lead)
- Suspended solids (TSS, turbidity)
- pH
- Dissolved Oxygen

7.2 Analysis

The water quality analysis tasks associated with this study include:

- a) Identify pollution sources, loading and source control measures, both short term and long term from different land uses in the Primary and Extended Study Area;
- b) Undertake research on what level of LID treatment is feasible within the Primary Study Area.
- c) Review any thermal mitigation techniques that may be required to mitigate impacts from land use changes.
- e) Incorporate all water quality treatment requirements in the SWM plan

7.3 Monitoring

The Project Consultant shall provide recommendations for a water quality monitoring program to monitor progress and adaptive management measures.

8.0 FISH AND AQUATIC HABITATS

8.1 Characterization and Background

Initial assessment work includes existing habitat assessment, Brook Trout spawning survey, benthic inventory and fisheries inventory if a permit can be obtained from MNRF. Identification of stream base flow sources and investigation of opportunities for base flow and habitat enhancement. Identify current sources of degradation. The Project Consultant will work closely with CH, DFO and MNRF when carrying out this assessment work, as necessary.

Set targets to ensure maintenance or enhancement, where possible, of quality and quantity of stream base flow and temperatures. Recommend practices and techniques to achieve or exceed targets. Applying recommended practices and techniques, investigate the impact of proposed urban development.

The composition of the benthic invertebrate community is an ecological reflection of the physical and chemical conditions of the watercourse. Various benthic taxa have well documented responses to water quality conditions; as such they are commonly used as early warning indicators for environmental change and are an essential component of integrated watershed monitoring. The purpose of the sampling program is to characterize conditions under current land use, and thus establish baseline data against which future land use scenarios can be assessed. This baseline data will also provide the foundation from which future monitoring programs can be developed.

A desktop review of all available current and historical fish and benthic community records is to be compiled for the Primary and Extended Study Areas. Fish habitat conditions will be interpreted using biological (fish and benthic invertebrates), geomorphologic, hydrological, hydrogeological and water quality data from other components in this study. An inventory of barriers to fish migration and existing online ponds is to be completed. Reconnaissance of all watercourse stretches within the Primary Study

Area should include visual surveys for the presence of spawning and refuge areas and important migratory routes.

HDFs should be classified/ characterized in accordance with the "Evaluation, Classification and Management of Headwater Drainage Features: Interim Guidelines" (TRCA and CVC, 2014).

All parameters related to aquatic habitat (e.g. stream morphology, riparian habitat, groundwater data, benthic invertebrates, fish community, water quality and quantity) should be collected at the same sampling locations. Once the data is compiled, data can be compared more easily due to the geographic scope of the sampling locations.

The term 'watercourse' is used as per the *Conservation Authorities Act* definition. Drainage features that do not meet the definition of watercourse will be considered HDFs and will be assigned the appropriate management recommendation based on the HDF assessment outlined above. Such drainage features would have previously been referred to as low constraint watercourses

The watercourse and HDF characterizations will form an appropriate constraint ranking for each feature and the Final Report will include management recommendations for these features.

8.2 Background Review and Field Work

Background information on the Primary and Extended Study Areas, and downstream of the Primary Study Area, will be collected from all available sources. Background information on the Primary Study Area will also be collected by field inspection, including but not restricted to the following:

The same sampling locations are to be used in collecting the following data parameters:

- Stream morphology
- Water quantity and quality (TSS, SRP, chlorides and water temperature etc.)
- Water temperature
- Benthic invertebrates
- Fish community.

Sampling locations should be chosen where water flow is anticipated to occur in the months of April, May and June, however it is not anticipated that the MNRF will issue fish collection permits for sampling during these months. As such, a fish collection permit for fall 2019 will be requested and, if one cannot be obtained, an application will be submitted for a late-spring or summer 2020 survey. The fisheries information gathered in 2020 will be submitted as an Addendum to the final report as it is not anticipated that the results of the survey will change the characterization or significance of the watercourses within the Primary Study Area. It is preferable that the locations be situated at sites that have healthy vegetated stream banks if possible, which are not located near existing road crossings. It is preferable that sites be chosen that exhibit both flat and steeper stream reach slopes.

8.3 Benthic Invertebrates Field Monitoring Methodology

Collection of aquatic invertebrate community samples at an appropriate number of locations using the Ontario Benthic Biomonitoring Network Protocol (MECP). Identification of the invertebrates in the sample should be undertaken to the species level and the data is to be analyzed using the following indices:

- a) % EPT
- b) Shannon Weaver Index
- c) Taxa Richness
- d) Hisenhoff Index
- e) % Oligochaeta
- f) % Chironomidae
- g) % Isopoda
- h) % Gastropoda
- i) % Dipteran
- j) % Insect

The following table is to be used to determine the relative health of the sites: Water Quality Index
Unimpaired Possibly Impaired

EPT >10 5-10 <5
Taxa Richness >13 <13
% Oligochaeta <10 10-30 >30
% Chironomidae <10 10-40 >40
% Isopoda <1 1-5 >5
% Gastropoda 1-10 0 or >10
% Diptera 20-45 15-20 or 45-50 <15 or >50
% Insect 50-80 40-50 or 80-90 <40 or >90
HFI <6 6-7 >7
SDI >4 3-4 <3

Aquatic invertebrate samples will be collected once during the SWS fieldwork within Tributary B and the East Branch of Sixteen Mile Creek. The sampling event should occur in the spring months, typically in April or May, when water flow is robust with cool or cold air and water temperatures however, benthic community sampling can be undertaken at any time of the year, provided the aquatic features are not frozen and water conditions are suitable.

8.4 Fish Community

- Fish community information should be collected in accordance with Sections 1 and 3 of the OSAP Manual. Fish community samples should be collected in May or June when there is likely to be a greater abundance of flow, which will make fish sampling more feasible however, due to the likelihood that the MNRF will not issue a permit to collect fish during the above noted timing window (spring spawning window in southern Ontario is from March 15 to June 15), a fall survey will be

completed in 2019 provided a permit is issued by MNRF. If a permit is not issued for the fall of 2019, fisheries data from the Phase 1B SWS, the Toronto Premier Outlet SIS and any monitoring data available from CH, will be used to characterize the fish community in the Primary Study Area. A permit application will be submitted to MNRF to undertake fish community sampling within appropriate timing windows in Spring 2020 to provide baseline data for pre and post construction monitoring efforts, and will be submitted as an Addendum to the final report. If MNRF will not issue a permit for a Spring 2020 survey, a subsequent application will be made for a Fall 2020 survey.

- Fish community abundance should be analyzed to provide a comprehensive explanation about the health of the fish community. Efforts should be made to analyze the fish community data with specific references and comparisons drawn to other data sets (e.g. benthic invertebrates, stream morphology, riparian vegetation, hydrogeological data and surface water quantity and quality) collected at the same locations.
- Sampling for fish species presence should be quantitative. It is expected that OSAP would be followed precisely rather than used as a general guideline.

8.5 Riparian Habitat

- Riparian Habitat along watercourses should be assessed for a distance of 30 m from each side of the bank full channel width of the creek.
- Riparian habitat should be identified as vegetated or not vegetated. In areas where this riparian corridor is observed to be vegetated; the vegetation communities are to be assessed using the ELC protocol to the Vegetation Type level.

Upon consultation with CH, DFO and MNRF, as necessary, the Project Consultant will appropriately characterize all watercourses and HDFs using integrated background data collected in the field from the following disciplines: Water quantity and quality, stream morphology, benthic invertebrate communities, fish community and riparian vegetation assessment.

1. Identify existing habitat features which are critical for maintenance of the existing fishery
2. Identify existing habitat features which may be presently limiting fish production (e.g. Elevated temperatures, sedimentation).
3. Using the information obtained, suggest opportunities to enhance fish production as development proceeds. (e.g. infiltration of stormwater, removal of on-stream ponds or structures, placement of spawning gravel over upwelling areas)
4. Examine fisheries problems and opportunities created under the proposed development scenario.
5. Through interaction with other disciplines, develop a preferred approach which documents habitat maintenance and enhancements.
6. Any proposal to alter or realign a watercourse or proposed watercourse crossings will need to apply Natural Channel Design principles. Road ecology principles will be followed for any watercourse crossing that has an upstream linkage to a portion of the RNHS. Similarly, where a road crossing is proposed that has an upstream regulated watercourse with the potential for fish passage, a fish passage assessment will be completed including general crossing principles, such as incorporating natural channel design, fish passage, wildlife movement.

9.0 TERRESTRIAL ECOLOGY - NATURAL HERITAGE FEATURES AND AREAS

9.1 Characterization and Background

1. The Primary and Extended Study Areas will be evaluated for habitat availability and the surveys outlined in Appendix B will be undertaken, as necessary, based on available habitat.
2. Undertake a comprehensive, three season field investigation of the Primary Study Area to identify and evaluate all natural heritage features and areas, including but not limited to: wetlands, forests, successional habitats, grasslands, wildlife travel corridors/ecological linkages, habitat of species at risk, woodlands, valleylands, wildlife habitat, as well as ESA's or other features/areas that may be located within or adjacent to the Primary Study Area. For the purpose of this study, adjacent lands are considered to be within 120m of the Primary Study Area. The investigation component should identify both the form and functions (ecological and hydrologic) of the existing natural heritage features/areas as well as the ecological interactions between and among them in sufficient detail to allow for local boundary adjustments through the assessment and implementation phases in keeping with the Regional NHS framework established through ROPA 38. Reference should be made to Section 115.3 of the Regional Plan when reviewing, classifying and describing the components of the Regional NHS.
3. Review current evaluation methodologies and confirm approach with SWTAC for use in the study as necessary. In particular, any unevaluated wetlands within the Primary Study Area will need to be evaluated using the 2013 Southern Manual of OWES.
4. Set detailed technical objectives and targets for appropriate preservation, protection and enhancement of natural features and their functions, which will need to be met by the proposed urban development, including any buffer/setback recommendations and associated restoration. Specify the best management practices that should be considered to meet these targets. The natural areas should be maintained, restored or, where possible, improved by the proposed management practices. The Region of Halton's Buffer Refinement Framework will be used as part of the risk-based approach for determining the recommended buffers.

9.2 Background Review and Field Work

Background information on the Primary and Extended Study Areas will be collected from all available sources and by field surveys (for the Primary Study Area), including but not restricted to the following:

- Compilation of natural heritage information from existing sources (e.g. NHIC, Aurora District MNRF, and CH species databases, provincial atlas projects, Halton NAI, CH Long Term Monitoring Program, Phase 1B Premier Gateway SWS, Toronto Premier Outlet SIS); master species list to combine results from background reports with field assessments. Of particular note is the Region of Halton's *Natural Heritage System Definition and Implementation Report*.
- Acquire any necessary permits for sampling (e.g. ESA permit, Wildlife Scientific Collector's Permit) well in advance of planned field season
- Conduct wetland evaluation and assessments according to the OWES and review/ utilization of any available evaluations completed by MNRF and CH.
- Assess SWH (See Methodology - Appendix B).

- Assess significant woodlands (See Methodology - Appendix B)
- Assess SAR (See Methodology - Appendix B)
- Conduct fish and fish habitat inventories assessment (see above section)
- Identify potential pollution point sources to the stream, i.e. storm outfalls, old dump sites
- Identify enhancement opportunities for all environmental components
- Carry out three-season inventory of flora and fauna to address any information gaps noted during the background review of previous studies and inventories and update background information as necessary. Undertake targeted surveys for birds (breeding), amphibians (calling amphibians), reptiles (turtle basking), mammals (bats) and plants, and incidental surveys of odonates and butterflies.
- Conduct ELC of all natural features and semi-natural features to Vegetation Type
- Identify existing ANSI's and ESA's
- Review of current study evaluation methodologies and based on consultation with stakeholders, provide recommendations for any necessary revisions to the previous evaluation methodology for use in the study and additional information needs.
- A table should be included with the date, stop and start time, weather conditions, personnel and purpose of all fieldwork conducted. Background information from the broader study area should also be consulted to provide an appropriate landscape context.

Based on aerial interpretation and ground-truthing of preliminary ELC habitats, no salamander or non-breeding bird surveys are anticipated at this time due to the limited availability of suitable, productive habitat.

9.3 Analysis

The Project Consultant will:

- a) Review previous studies on the natural heritage systems and areas. The Halton NAI (2006) and information from CH should be used to determine species' local status within respective watersheds.
- b) Identify and map all natural and semi-natural vegetation communities, wildlife corridors, wildlife habitat areas, SWH, significant woodlands, significant valleylands, provincially and locally significant wetlands and ANSI's and ESA's that may be located within, or adjacent to, in order to provide landscape context, the Primary Study Area.
- c) Define functional relationships between wildlife and natural areas, with particular attention to movement and seasonal habitat requirements. Identify Critical Function Zones around wetlands, from which appropriate setback distances/buffer treatments would be established.
- d) Where necessary to ensure appropriate level of knowledge/documentation complete inventory of the vegetative and wildlife resources of each area, confirm previous findings;
- e) In conjunction with the Hydrology and Hydrogeology section, if development is anticipated to alter catchment areas to existing wetlands, determine the water needs of these natural systems (feature-based water balance) to ensure their form and function will be maintained post development and identify appropriate buffers
- f) Identify the circumstances, which promote the observed resources and their associated functions. Set targets and recommend practices to ensure their maintenance or enhancement, where possible.

- g) Identify potential refinements to the RNHS boundary, including additions, outright removals, relocations and/or removals with functions replicated. The identified refinements to the RNHS should consider Sustainable Halton Report 3.02, Natural Heritage System Definition and Implementation.
- h) Develop an NHS constraints map that incorporates the natural heritage features and areas identified through the study process, including restoration and enhancement areas, required to protect or improve the ecological and hydrologic functions of the system for the long term.
- i) Identify opportunities to link isolated natural areas to the RNHS, where appropriate.
- j) Confirm that the proposed development will result in no negative impacts to the portion of the RNHS adjacent to the development, as required in Section 118(3) of the Regional Official Plan and the systems approach outlined in Section 118(2)
- k) To the extent possible, given the Primary and Extended Study Area boundaries, evaluate cumulative or systems level impacts.
- l) Identify future monitoring requirements to be conducted as part of and following the completion of the site plan implementation.

10.0 ADDITIONAL BACKGROUND REVIEW

10.1 Municipal and Land Use Planning

- existing and future land use
- Official Plans and Zoning By-laws
- PPS 2014
- A Place to Grow – Growth Plan for the Greater Golden Horseshoe (2019)
- CH Policies and Guidelines for the Administration of Ontario 162/06 and Land Use Planning Policy Document, April 27, 2006 - revised February 25, 2016

The background review will include all relative reports and information sources.

- a) The Project Consultant will layout a framework for the organization, management and presentation of resource data.
- b) The Project Consultant will identify all wetlands, ponds, HDFs, and defined watercourses using aerial photos and field inspections. During the field inspections, the Project Consultant will also observe and comment on existing land uses, vegetative cover, quantity of flow, wildlife and fish habitat and pollution sources.
- c) Data deficiencies should be identified and requirements for field monitoring of specific parameters or characteristics to augment the data base should be made. Standards will have to be specified for collection of additional data. Additional field data shall be collected where necessary and added to the existing databases such that the level of detail will support the decision making process of the SWS.
- d) Consideration should be given to post development monitoring requirements when sighting locations of additional stations. Additional data requirements identified by field survey.
- e) The Project Consultant will prepare a base map of the Primary and Extended Study Areas which can be used throughout the study to overlay subwatershed attributes and plan components.
- f) The Project Consultant will work closely with the SWTAC chairman.

10.2 Subwatershed Synopsis

a) The Project Consultant will summarize the targets, constraints and opportunities identified in the study:

- natural/ semi -natural cover targets and constraints
- stormwater flow and volume constraints for flood and erosion control
- constraints on urban development to meet flows and volume targets
- susceptibility of groundwater to contamination from urban stormwater infiltration
- potential recharge and discharge zones to maintain/enhance base flow and water temperature in the stream
- existing sources of pollution and corresponding remedial action
- water quality targets based on desired fish community objectives and feasible methods for managing water quality
- constraints on urban development to maintain/ enhance water quality
- circumstances which promote or affect the feasibility of target fish species
- constraints on urban development to enhance fish habitat
- NHS and associated restoration opportunities (including, but not limited to, wetlands, ESAs, stream corridors, CH regulated areas, ANSIs)
- NHS and stream corridor management boundary for the streams and other natural heritage features within the subwatershed, with consideration for adjacent features. The stream corridors should be determined so as to include natural features where protection and preservation is important to meet the goals and objectives of the study. Features to be included are floodplains, wetlands, woodlands, erosion prone areas, significant wildlife areas, ecologically important areas and any recommended buffers.
- Confirmation that the proposed development will result in no negative impacts to the portion of the RNHS adjacent to the development, as required in Section 118(3) of the Regional Official Plan and the systems approach outlined in Section 118(2)

Appendix A - Studies and References

- SIS and EA studies completed in the area where available to the Study Team
- A Guide to Road Ecology in Ontario. 2010. Prepared by the Ontario Road Ecology Group, Toronto Zoo.
- Assessing the Degradation Effects of local Residents on Urban Forests in Ontario, Canada. 2010. McWilliams, W., P. Eagles, M. Seasons and R. Brown.
- Arboriculture & Urban Forestry 2010. 36(6): 253-260.
- Birds of Hamilton and surrounding areas: including all or parts of Brant, Halton, Haldimand, Niagara, Norfolk, Peel, Waterloo and Wellington. 2006. Prepared by Robert Curry and the Hamilton Naturalists' Club.
- Effectiveness of Boundary Structures in Limiting Residential Encroachment into Urban Forests, McWilliam et al., 2011.
- Halton Natural Areas Inventory. 2006. Prepared by Halton/North Peel Naturalists ' Club, Conservation Halton, South Peel Naturalists' Club, Halton Region and Hamilton Naturalists' Club.
- Study Report: thermal impacts of urbanization including preventative and mitigation techniques, CVC, 2011.
- The Herpetofaunal Atlas for the Halton Region. 1999. Prepared by Lori Macadamand published by The Halton/ North Peel Naturalist Club.
- The Impacts of Urbanization on the Hydrology of Wetlands: a literature review, TRCA, 2011
- The Reptiles and Amphibians of the Hamilton Area: An Historical Summary and the Results of The Hamilton Herpetofaunal Atlas. 1994. Prepared by William G. Lamond and published by the Hamilton Naturalists' Club.
- Hydrogeological Study in Support of a PTTW Application for Dewatering During Construction of a Proposed Watermain and Sanitary Sewer, Steeles Avenue from Trafalgar Road to Winston Churchill Boulevard, Town of Halton Hills, AMEC Earth and Environmental, May 2010
- Sixteen Mile Creek Watershed Plan, prepared in support of the Halton Urban Structure Plan, Gore & Storrie, February 1996
- Sixteen Mile Creek Watershed Plan, Technical Report # 2, Evaluation of Potential Development Impacts, prepared in support of the Sixteen Mile Creek Watershed Plan and the Halton Urban Structure Plan, Gore & Storrie, February 1995
- Sixteen Mile Creek Watershed Plan, Technical Report# 3, Regional Hydrogeology, prepared in support of the Sixteen Mile Creek Watershed Plan and the Halton Urban Structure Plan, Gore & Storrie, February 1995
- Sixteen Mile Creek Watershed Plan, Technical Report# 4, Natural Environment, prepared in support of the Sixteen Mile Creek Watershed Plan and the Halton Urban Structure Plan, Gore & Storrie, February 1995
- Study Report: Thermal Impacts of Urbanization including Preventative and Mitigation Techniques, January 2011, CVC
- Fluvial Geomorphic Guidelines Fact Sheet I to V, CVC Stability, Erosion, and Development Setback Components Definition & Determination, July 2011, CVC
- Stormwater Management Criteria-Draft April 2012, CVC
- Halton Region's Aquifer Management Plan
- Low Impact Development Stormwater Management Planning and Design Guide by CVC and TRCA, 2010.

- Source Protection Plan for the Halton Region and the Hamilton Region Source Protection Areas, Halton-Hamilton Source Protection Committee, October 2017.
- Landscape Design Guide for Low Impact Development, CVC, Version 1.0 June 2010
- Evaluation, Classification and Management of Headwater Drainage Features Guideline. TRCA and CVC, TRCA Approval July 2013 (Finalized January 2014).
- Best Practices Guide to Natural Heritage System Planning, Ontario Nature, 2014
- Phase 3, Sustainable Halton Report 3.02: Natural Heritage Definition and Implementation, North-South Environmental, April 2009
- Requirements for completion of hydrogeological studies to facilitate Conservation Halton's reviews, dated November 2014
- Halton Region Buffer Refinement Framework (v.1, February 2017)
- Conservation Halton's Guidelines for Ecological Studies, 2017
- Conservation Halton's Road Ecology Best Management Practices - Quick Reference Guide (2018)

Tentative Reports Subject to Availability:

- Hydrogeologic Study for Construction of a Proposed Watermain and Sanitary Sewer - Steeles Avenue from Trafalgar Road to Winston Churchill Boulevard, report completed by AMEC and dated October, 2011
- Halton Hills Sewage Stations No.3 (near Steeles and 8th Line) Hydrogeologic Assessment, completed by Stantec, and dated December 2011

Appendix B -Terrestrial Field Methodologies

ELC fieldwork will include three season botanical surveys and will result in the identification of vegetation community types, faunal and floral species, as well as existing levels of disturbance. ELC data cards will be required, which encompass vegetation, wildlife, soils, and human disturbance information. In summary, the ELC and botanical work will collect/document the following:

- Thorough inventory of flora species composition and abundance within vegetation community.
- Vegetation community structure, densities, and age.
- Assessment and evidence of natural and cultural disturbance, and document cultural features (i.e. trails or structures).
- Identification and relative abundance (abundant, occasional, rare - see ELC manual) of disease and invasive species
- Note any other natural features. May include but not limited to vegetation community inclusions, old growth, watercourses, swales, seeps, specialized wildlife habitat, and kettle wetlands.
- Identify, map the location, and describe the abundance of locally rare or uncommon species, their location and distribution based upon the Halton NAI (2006);
- Provide an assessment of the current health of the vegetation considering factors using the Floristic Quality Assessment System (Oldham, Bakowsky and Sutherland, 1995).
- Calculate Floristic Quality Assessment, Coefficient of Conservatism, and Wetness Index for vegetation communities
- Confirm lands with potential old growth or trees (100 years or greater).
- Identify the representativeness and rarity of the natural features and functions, by ELC vegetation type, within the context of the Primary Study Area, Municipality, CH Watershed, and the Province of Ontario. *Note: Ranking by Rarity in the Province of Ontario as prepared by W. Bakowsky of the Ontario NHIC.* Wildlife surveys will utilize the following standard protocols. Where survey methodologies for certain taxa are lacking, consultation and approval by the SWTAC will be required.
 - Winter Wildlife Surveys following the SWH Technical Guide (OMNR 2000) as well as the RISC (Resources Inventory Standards Committee) species inventory methods manual
 - Owl and Raptor Surveys during migration and nesting season (Winter 2019 if deemed necessary based on vegetation communities);
 - Breeding bird surveys in accordance with the OBBA protocol (2001), Forest Bird Monitoring Program, (CWS, 2002) or the Marsh Monitoring Program (BSC, 2003);
 - Breeding Amphibian Surveys (April, May, June) in accordance with Bird Studies Canada Marsh Monitoring Program; and,
 - If deemed necessary based on vegetation communities within the Primary and Extended Study Area, targeted wildlife surveys within the Primary Study Area for reptiles (snakes and turtles) bats and salamanders; incidental observations of odonates (damselflies and dragonflies), butterflies, mammals, moths and other insects. Survey protocols for these taxa are to be approved by the SWTAC.

Through the wildlife surveys, the following data will be assembled:

- Identification of any rare or uncommon species, their location and distribution based on the Halton NAI as well as Priority Landbird Species as identified by Ontario Landbird Conservation

Plan: Lower Great Lakes/St. Lawrence Plain (North American Bird Conservation Region 13),
Priorities, Objectives and Recommended Actions (OPIF, 2005);

- Review data against the SWH Technical Guide and associated supporting documents to determine which vegetation communities meet designation criteria for SWH.

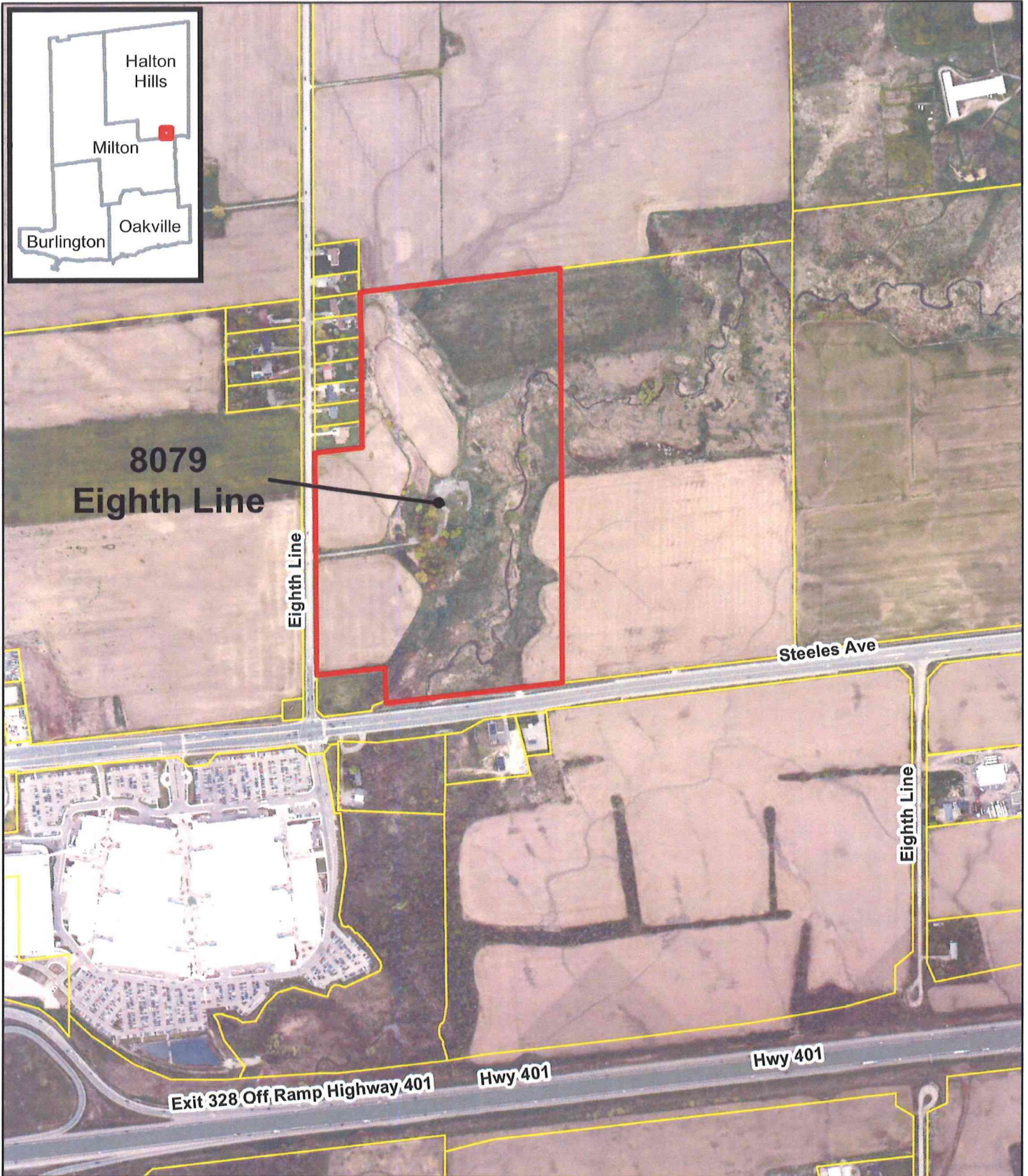
Appendix C- Technical Engineering Recommendations

- When modeling the Regional Event, should a theoretical rainfall distribution for the initial 73 mm of rainfall over the initial 36 hours be modelled, it must be demonstrated that the selected theoretical rainfall distribution generates peak flows and volumes consistent with the peak flows and volumes modeled on the basis of running only the final 12 hours of the Hurricane Hazel Rainfall Distribution with saturated/ early saturated ground conditions (and IA set to O) at the start of the final 12 hours.
- The Regulatory Storm is defined as the greater of the 1:100 year or Regional (Hurricane Hazel) storm.
- Post to pre quantity control may also be required for the Regional storm. If regional controls are not incorporated into the SWM design, the SWS must carry out an investigation of the potential increase to flood risk to determine what level of control will be required. Such an analysis is to include the increase in risk to life as well as the potential for flood risk to private, Municipal, Regional, Provincial and Federal property under Regional Storm conditions. If the study finds that no increase in risk occurs to downstream landowners or public uses, and the Town and CH accept that finding, the Town in conjunction with CH will conclude, subject to consideration of any other relevant factor within their respective mandates that control at the Regional Storm level is not required.
- Evaluation of risk associated with not establishing Regional Storm control may include, but is not limited to:
 - All existing development within the Primary Study Area for the watershed under consideration;
 - The potential increase in flood risk associated with flood elevations or velocities that may adversely affect all landowners (including individuals, municipal agencies, provincial agencies (MTO, MECP, etc.) and federal agencies), all land uses including road crossings, private access roads, parks, storm sewer outlets, etc., for the watercourse to the 401. The evaluation may also consider potential for the implementation of mitigation measures to address any increase in risk as an alternative to the requirements to control Regional Storm flows.
 - It is understood that not all increases in flood velocity or flood elevation will necessarily lead to an increase in risk.
- Diversions should be minimized; however, should the proponent propose a watercourse diversion or modification of drainage basin boundaries, a low flow analysis and geomorphic assessment must be completed, in addition to the analysis outlined in other sections of this document. The purpose of the low flow analysis and geomorphic assessment is to determine the impacts of water takings and land use changes on base flows and stream functions, and recommend strategies to avoid or mitigate these impacts. The hydrologic model will be used to model low flow conditions. A low flow frequency analysis for key nodes in the subwatershed will be completed for the existing and future development scenarios. An impact assessment of existing water taking permits, unlicensed or potential water takings based on land uses, and the potential for future water taking permits and land use changes will be included in this analysis. The impacts on ecologic flow needs to support aquatic health must also be considered, with specific reference to the MECP's March 2000 "Water Allocation and Water Taking Management Strategy for Sixteen Mile Creek (reference

p. 43 for recommendations associated with Subwatershed 5). The analysis will also consider how the modified flow regimes in the receiving and losing systems will impact fluvial geomorphic processes.

Recommendations for future monitoring work are to consider:

- monitoring specifics related to construction as per the approved plans, the stability of the SWM system as installed, and the functionality of the system relative to the design targets associated with water quality, peak flow control and protection against unnatural rates of downstream erosion;
- a timeframe and duration of monitoring;
- qualifications required to complete monitoring works;
- appropriate adaptive management requirements should a trigger be reached; and
- on-going validation and re-calibration if required of the refined watershed hydrologic model.
- CH may support floodplain modifications based on the outcome of this study, recognizing it should result in an ecological gain to the NHS and not impact with the functions of the watercourse. The SWS will need to provide conceptual level details for any re-alignment to ensure proposed conditions floodplain mapping will be based on a constructible corridor width and profile.
- Where modifications to natural features are recommended, the study will incorporate sufficient analysis to ensure that any loss of riparian flood storage or changes which result in potential negative impacts (i.e. increased flooding depth, frequency, duration, velocity or erosion) are avoided/fully mitigated over the full range of anticipated flow conditions. Preservation of riverine floodplain stage-storage-discharge must be demonstrated over a full range of return period flood levels, for those watercourses regulated by CH (i.e., Tributary B and East Branch of Sixteen Mile Creek), and on an appropriate incremental basis in accordance with the directions of CH. Note: Artificially restricting the channel corridor to throttle flows and elevate water levels to balance flood storage will not be permitted where restrictions are required within the meander belt.



8079 Eighth Line

 Hodero Lands
 Parcels

